UNEXPECTED WAR IN THE INFORMATION AGE.
COMMUNICATIONS AND INFORMATION IN THE FALKLANDS CONFLICT.
Gladys D. Ganley
and
Oswald H. Ganley

Program on Information Resources Policy
Harvard University
Center for Information Policy Research
Cambridge, Massachusetts
A publication of the Program on Information Resources Policy.

UNEXPECTED WAR IN THE INFORMATION AGE. COMMUNICATIONS AND INFORMATION IN THE FALKLANDS CONFLICT.
Gladys D. Ganley and Oswald H. Ganley
April 1984
Publication P-84-3

The Program on Information Resources Policy is jointly sponsored by Harvard University and the Center for Information Policy Research.

Chairman: Anthony G. Oettinger
Managing Director: John C. LeGates
Executive Director: John F. McLaughlin
Executive Director: Benjamin M. Compaine
Executive Director: Oswald H. Ganley

Gladys Ganley is an independent researcher and writer. She is co-author of To Inform or to Control? The New Communications Networks, published by McGraw-Hill in 1982, and author of other publications.

Copyright©1984 by the Program on Information Resources Policy. Not to be reproduced in any form without written consent from the Program on Information Resources Policy. Harvard University, 200 Aiken, Cambridge, Ma 02138 (517) 495-4114. Printed in the United States of America.

Printing 5 4 3 2
Program on Information Resources Policy

Harvard University

Contributors

Action for Children's Television
American Broadcasting Companies, Inc.
American District Telegraph Co.
American Telephone & Telegraph Co.
AT&T Information Systems
Arthur D. Little, Inc.
Auerbach Publishers Inc.
Automated Marketing Systems
BellSouth Corporation
Bell Telephone Company
of Pennsylvania
Booz-Allen Hamilton
Canada Post
Codex Corp.
Communications Workers of America
Computer & Communications Industry Assoc.
COMSAT
Continental Cablevision, Inc.
Continental Telephone Corp.
Coopers & Lybrand
Copley Newspapers
Cowles Media Co.
Cox Enterprises, Inc.
Dialog Information Services, Inc.
Digital Equipment Corp.
Direction Generale
des Telecommunications (France)
Diversified Communications, Inc.
Doubleday, Inc.
Dow Jones & Co., Inc.
Dun & Bradstreet
EIC/Intelligence Inc.
Federal Reserve Bank of Boston
France Telecom (France)
Frost & Sullivan, Inc.
Gannett Co., Inc.
General Motors Corp.
General Telephone & Electronics
GTE Sprint Communications Corp.
Harte-Hanks Communications, Inc.
Hazel Associates
Hitachi Research Institute (Japan)
Honeywell, Inc.
Hughes Communication Services, Inc.
E.F. Hutton and Co., Inc.
Illinois Bell
IBM Corp.
Information Gatekeepers, Inc.
International Data Corp.
International Resource Development, Inc.
Invoco AB Gunnar Bergvall (Sweden)
Irving Trust Co.
Knowledge Industry Publications, Inc.
Kokusai Denshin Denwa Co., Ltd. (Japan)
Lee Enterprises, Inc.
John and Mary R. Markle Foundation
MCI Telecommunications, Inc.
McKinsey & Co., Inc.
Mead Data Central
MITRE Corp.
Motorola, Inc.
National Association of Letter Carriers

Center for Information Policy Research

NCR Corp.
National Telephone Cooperative Assoc.
New England Telephone
New Jersey Bell
NEC Corp. (Japan)
Nippon Telegraph & Telephone Public
Corp. (Japan)
Northern Telecom Ltd. (Canada)
Northrop Corp.
NYNEX
Ohio Bell
The Overseas Telecommunications
Commission (Australia)
Pitney Bowes, Inc.
Public Agenda Foundation
RCA Corporation
Reader's Digest Association, Inc.
Research Institute of Telecommunications
and Economics (Japan)
Royal Bank of Canada (Canada)
St. Regis Paper Co.
Salomon Brothers
Satellite Business Systems
Scalise Family Charitable Trusts
Seiden & de Cuevas, Inc.
Southwestern Bell Corp.
Telecom Futures, Inc.
Telecommunications Research
Action Center (TRAC)
Time Inc.
Times Mirror Co.
Times Publishing Co.
TRW Inc.
United States Government:
Central Intelligence Agency
Department of Commerce:
National Oceanographic and
Atmospheric Administration
National Telecommunications and
Information Administration
Department of Defense:
Office of the Under Secretary of
Defense for Policy
Department of Energy
Department of State
Office of Communications
Federal Communications Commission
Federal Emergency Management Agency
Internal Revenue Service
National Aeronautics and Space Admin.
National Security Agency
United States Information Agency
United States Postal Rate Commission
United States Postal Service
U.S. Japan Foundation
US West
United Telecommunications, Inc.
Warner Amex Cable Communications Inc.
The Washington Post Co.
Western Union
Wolters Samson Group (Holland)
ACKNOWLEDGMENTS

Special thanks are due to the following persons who reviewed and commented critically on previous drafts of this study. These persons, however, are not responsible for nor necessarily in agreement with the views expressed herein, nor should they be held accountable for any errors of fact or interpretation.

Fred Berghoff
Robert Bigelow
Roy Campbell
John Chancellor
John H. Cushman
Morris H. Crawford
William E. DeFuy
Anthony Green
Michael Harbottle
Flora Lewis
Michael Palliser
Alan H. Protheroe
David C. Richardson
Robert Service
M. A. Shader
Stansfield Turner
<table>
<thead>
<tr>
<th>TABLE OF CONTENTS</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
<td>1</td>
</tr>
<tr>
<td>Preface</td>
<td>iii</td>
</tr>
<tr>
<td>Chronology of the Falklands Conflict</td>
<td>vi</td>
</tr>
<tr>
<td>Chapter 1 Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Chapter 2 The Armaments Proving Ground</td>
<td>9</td>
</tr>
<tr>
<td>Chapter 3 Intelligence Failure or Political Misjudgment</td>
<td>25</td>
</tr>
<tr>
<td>Chapter 4 British Command, Control, Communications and Intelligence</td>
<td>33</td>
</tr>
<tr>
<td>Chapter 5 Argentine Command and Control</td>
<td>45</td>
</tr>
<tr>
<td>Chapter 6 Argentina and the News</td>
<td>49</td>
</tr>
<tr>
<td>Chapter 7 Great Britain and the News</td>
<td>57</td>
</tr>
<tr>
<td>Chapter 8 The Role of the USSR</td>
<td>71</td>
</tr>
<tr>
<td>Chapter 9 The Role of the United States</td>
<td>79</td>
</tr>
<tr>
<td>Chapter 10 Worldwide Spread of Electronic Weapons</td>
<td>91</td>
</tr>
<tr>
<td>Conclusions</td>
<td>97</td>
</tr>
<tr>
<td>Appendix 1</td>
<td>101</td>
</tr>
<tr>
<td>Appendix 2</td>
<td>108</td>
</tr>
<tr>
<td>Appendix 3</td>
<td>110</td>
</tr>
<tr>
<td>Appendix 4</td>
<td>113</td>
</tr>
<tr>
<td>Notes</td>
<td>115</td>
</tr>
</tbody>
</table>
Executive Summary

... The 1982 conflict between Great Britain and Argentina over the Falkland Islands was the first missile war at sea ever. It could foreshadow the way future wars will be fought, and illustrates some problems that many powers -- including superpowers -- may in the future be forced to face.

... The conflict reflects the massive shifts from conventional to electronic means which have occurred during less than two decades: in armaments; in intelligence gathering; in command, control and communications; and in the collection and transmission of battlefield news. Similar changes have been taking place in this time frame in the civilian sector, as nations have moved toward information-intensive economies and societies.

... The battle for the Falklands pointed up the global problem of massive sophisticated arms spread to smaller countries. This has steadily increased during the past ten years. Such arms permitted a much weaker nation like Argentina to challenge (nearly successfully) a key member of NATO.

... Both lack of information and political misjudgments led to the conflict, showing a possible over-reliance on signals intelligence gathering and a lack of human intelligence resources.

... The limited defense power of the West against "friendly" weapons was illustrated when a modern western missile in the hands of a developing country sank a modern NATO ship, and when western radar in the hands of the weaker power could not be jammed by western electronic countermeasures.
... British strengths in command, control and communications — with concomitant Argentine weaknesses in this area — helped to compensate for Britain's 8000 mile supply line. But lack of Airborne Early Warning and many types of information severely handicapped British efforts.

... Battlefield media coverage in the TV age caused a major controversy during and after the conflict. This has now become a perennial problem for nations, as illustrated recently in Grenada.

... The inevitable involvement of one or both superpowers in local wars was also demonstrated in the Falklands. The U.S. gave extensive material and intelligence support to the British, while the Soviets are rumored to have aided Argentina.
Preface

Before the Falklands War had ended, it was already being used to prove all sorts of things.¹

"...If one already believed, for example, that big carriers were what the Navy needed, then the Falkland Islands case proved it needed big carriers. If one believed that the Navy should have small carriers, then the Falkland Islands proved that it needed small carriers. If one believed that the Navy needed no carriers at all, then it proved that it needed no carriers at all..."

The Falklands conflict has, of course, renewed interest in a multitude of old rivalries. These pit the military services against each other; the high technology advocates against the low technology advocates; those pro human intelligence gathering against those who prefer signals intelligence gathering; and the interests of national security against those of freedom of the press.

But whether the Falkland Islands case can be used to "prove" any or all specific points, it is nevertheless useful to examine this capsule war. For over the past two decades — and in many instances, in the last decade or less — the methods both for ensuring national security and for waging actual war have radically changed. This has largely been a function of the introduction of an ever growing variety of electronic technologies into armaments, into intelligence gathering, into command, control and communications, and into methods for collection and transmission of battlefield news.

Advances in computers, microchips and other electronic technologies have revolutionized weapons systems. Electronics production for U.S. defense hardware rose from a business worth a few million dollars as recently as the early 1970's to one worth $22.7 billion in 1981. This is expected to further rise to $106 billion by 1991. These figures
represent 40.6 and 47 percent of the respective 1981 and 1991 U.S.
defense hardware budgets. \(^2\)

Electronics have shifted the means of intelligence gathering away
from human intelligence (humint) and toward signals intelligence
(sigint). Electronics now also permit command and control over immense
distances via satellites. Satellites and miniaturized photographic
equipment are providing the capability for instantaneous collection and
dissemination of news straight from the front. Satellites also allow
remote sensing of the earth, collect militarily important weather data,
and act as photographic, electronic listening, and radar sensing spies.

Since the late 1950’s, the race between the superpowers as well as
the defenses of the NATO countries have been based on electronic
superiority. But the 1970’s and 1980’s have also seen the spread of
electronic weaponry to smaller powers. Perhaps the main "proof" the
Falklands conflict provided is that great strength can be derived by
little countries simply by purchasing readily available and relatively
inexpensive sophisticated arms. \(^3\)

Except for Vietnam and the various Israeli wars, this new mix of
electronics with older techniques and technologies is relatively
untried. The Falkland Islands conflict, therefore, raises certain
important questions:

...Have any of these shifts from more traditional to electronic
methods of doing things made vital differences or left certain
critical areas uncovered?

...Is the possibility of sudden, sophisticated wars in unexpected
places by unusual sets of combatants alarming? Has the spread
of electronic weaponry significantly altered the world's battle-
fields? How much strength has the Third World gained thereby?

...How intertwined are the electronic intelligence capabilities of
the U.S. and its allies? Does this force the taking of a
specific side?

...Do the electronic weapons work and in what combinations? What
political and commercial factors, if any, obscure defects?

...Has the shift from the collection of intelligence largely by
humans to its collection mainly by electronic means been wholly
a happy one? What is the lesson for the U.S. from the British
experience?

...What are the consequences of real time command and control from
the homeland for the command and decision making structure of
the military? What happens if you get a lot of wars at once?

...What should be the role of the media of democratic countries in
modern wars and how important is prior planning for this?

...What are the credibility risks vs. benefits to governments of
spreading of "disinformation" in an era of instant global
communications? Has the role of propaganda been or should it be
updated for the electronic age?

...How do the superpowers use or restrain the use of their new
electronic capabilities in these unexpected wars? Has the wide
spread of weapons weakened their power to control conflicts?

...Has this first large scale use of Western weaponry vs. Western
weaponry taught any useful lessons?

In an effort to illuminate the above questions, this paper examines
the various communications and information aspects of the Falkland
Islands conflict as they interacted in this 10-week war.
Chronology of Events

1982

February
Last talks (in New York) between British and Argentines regarding the Falklands.

March 19
The scrap metal merchants incident occurs on South Georgia.

March 27
First Argentine naval movements.

April 2
Argentina invades the Falkland Islands and South Georgia.

April 5
British task force sails and British Foreign Secretary Lord Carrington resigns.

April 8
British announce a 200 mile naval Exclusion Zone around the Falklands to take effect April 12.

April 25
Britain recaptures South Georgia and disables the Argentine submarine Santa Fe.

April 30
The U.S. backs Britain. The British impose a total Exclusion Zone for navy and air.

May 1
The Port Stanley runway is bombed by British Vulcan and Harrier aircraft.

May 2
The Argentine cruiser General Belgrano is sunk by a British nuclear submarine. 350 Argentines are lost. Two Argentine patrol vessels damaged by helicopter-launched Sea Skua missiles.

May 4
The British destroyer Sheffield is hit by air-launched Exocet missile. At least 25 British lost. Ship eventually sinks.

May 7
British total Exclusion Zone extended to 12 miles off Argentine coast.

May 9
Argentine intelligence-gathering "fishing" trawler Narwal is damaged by British.

May 15
British marines destroy 11 Argentine aircraft on Pebble Island.

May 21
British troops land at Port San Carlos. British frigate Ardent sunk, the frigate Argonaut and destroyer Antrim damaged. 17 Argentine aircraft downed.

May 25  Argentine Independence Day raids sink British destroyer Coventry and the British container ship Atlantic Conveyor is hit by air-launched Exocet and eventually sinks. Several Argentine aircraft downed.

May 28  Battles of Goose Green and Darwin. 250 Argentines killed and 1400 troops captured. Only 17 British soldiers said to be lost. Douglas and Teal Inlets also captured by British.

May 29  Port Stanley bombarded by British ships and planes.

May 31  British occupy Mount Kent 12 miles from Port Stanley.

June 8  Severe damage to two British landing craft and many British casualties at Bluff Cove.

June 11  Glamorgan hit by Argentines using truck-mounted surface-to-surface Exocet, as British ship lies 19 miles off shore. Ship damaged but remains in operation.

June 14  Argentines surrender to British and the conflict is over.
Chapter 1. Introduction

In the spring of 1982, an ancient political abscess erupted and led to the "world's most unexpected war." This, the first missile war at sea in history, provided a showcase and proving ground for a variety of Western weapons, products of the information age.

The Falklands conflict was on the one hand:¹

"...a curiously old fashioned war...like something from the Victorian stage: a simple plot, a small but well-defined cast of characters, a story in three acts with a clear beginning, middle and end, and a straightforward conclusion that everybody could understand."

Saying that "Clausewitz would have approved," Colonel Jonathan Alford, Deputy Director of the International Institute for Strategic Studies in London, described it as being limited in space, time, degree of violence and political objectives.²

And yet, it was a complicated conflict which could have far reaching effects:³

"Just as the Spanish civil war in the 1930's proved to be a testing ground for arms and strategies later used in World War II, military planners around the world are viewing the battle of the South Atlantic as a trial of high-technology weapons, ships and aircraft never before used in combat ..."

Norman Friedman, Deputy Director of National Security Studies at the Hudson Institute, calls the Falklands conflict:⁴

"...the first real naval war since 1945, the first time a Western fleet has encountered massive air opposition in the jet age. ..."

and says:

"...It...provided an uncomfortable foreshadowing of the problems the U.S. Rapid Deployment Force might well face."

While not the latest superpower arms, still, highly computerized aircraft and ships; nuclear-powered submarines; submarine-warfare equipped helicopters; delayed-action bombs; "smart" torpedos; an array
of air-to-air, air-to-surface, surface-to-air, and surface-to-surface missiles; various radars, sonars, and interception, decoy, and jamming devices; and a variety of communications equipment were given a workout in the South Atlantic. Not all the British arms performed as advertised, however, and not all the Argentine arms were put to use.

The outcome was never assured until the last in this contest between a middle-sized NATO power and a developing country. Argentina waged the war with virtually no arms of its own making, but with information-age weapons from various Western countries lending potency to its seemingly spur-of-the-moment effort. Some of its western electronics were foolproof against electronic counter defenses, which had also been made in the west.

But the war was concerned with more than arms. "Margaret's Little War" began in Great Britain with an outcry over possible intelligence failures and this became the subject of a six month post-war investigation. The Thatcher government was exonerated but partly on grounds that information necessary to predict an invasion had not been, or was not capable of having been collected, due to lack of British intelligence capabilities within Argentina and lack of supplemental information from the United States.

Throughout the 74-day war, rumors abounded concerning what Russian spy satellites, planes and ships might be up to. Just how much information the USSR gave or had to give to Argentina was the subject of

*Commonly known as the "Franks Report," the result of this investigation by a Privy Council Committee headed by Lord Franks was published in January, 1983.
much press speculation. That the Soviets might be using the Falklands opportunity to test their growing satellite capabilities and to collect information for their own use was largely ignored by the news media.

A month into the war, the U.S., torn between two allies, openly sided with Great Britain. Initial denials of aid to its NATO ally were then dropped. Satellite facilities for command, control and communications, communications and information and other equipment, and various types of intelligence — in any case deeply intertwined with Great Britain's — were made available. Interactions between the two countries appear to have been numerous, but much of this is necessarily shrouded in secrecy.

While the war remained under political control in Great Britain, there appears to have been little political interference with the military. The war was effected by satellite communications from Fleet Headquarters in Northwood, England, a "first" in British history. Local commanders operated under politically mandated "Rules of Engagement", but virtually no decision was made locally without prior consultation with Fleet Headquarters. Because of excellent advance contingency planning, albeit for the North Atlantic, a large part of the task force, including civilian ships "taken up from trade", was capable of being assembled over a weekend.

Although there was some shortage of secure satellite channels, no command and control deficiencies caused serious problems for the British. The Israelis are said by the British to have aided Argentina with secure on-line encryption throughout the conflict, with the result that the communications link to the Argentine mainland from the Argentine Commander on the Falklands, General Menendez, was never
"readable" by the British\textsuperscript{11} (presumably even with U.S. help).

British strategic and tactical intelligence were both very poor. Almost complete reliance had to be put on Special Air Service, Special Boat Service and other patrols. At no time were the larger Argentine submarines located. The shallow water did not lend itself to submarine detection or control. The Island telephone had to be resorted to in some instances. Not until the war's end did the British discover that Argentine C-130s had used the Stanley runway throughout. Despite millions of pounds of bombs -- probably including "smart" bombs -- dropped, the British were never able to make more than one significant hole in the runway. Due to the Falklands foul weather and lack of resources, very little satellite or other types of aerial photo reconnaissance was available.\textsuperscript{12}

The greatest overall British problem was the lack of long range airborne reconnaissance capability.\textsuperscript{13} Its last large aircraft carrier which could carry Gannett airborne early warning planes had been retired in 1979. Small carriers had been introduced on the assumption that any conflict would be in Europe where either land-based aircraft could provide the necessary reconnaissance\textsuperscript{14} or where it would be supplied by other NATO powers. Because of their small carriers, the British could not take a plane aboard with sufficient range to patrol the area between the Falkland Islands and the Argentine mainland. Nimrod advance early warning systems were not yet in service.\textsuperscript{*} The British marine patrol Nimrod is primarily equipped for anti-submarine reconnaissance, and its range is too short for the 3500 mile trip from the nearest British base

\textsuperscript{*}\textit{Aviation Week}\textsuperscript{15} reported on September 6, 1982, that some models would be delivered to the Royal Air Force in 1983, with full service in 1984.
on Ascension Island. Late in the campaign, in-air refueling permitted some limited Nimrod surveillance. A Victor tanker was pressed into use for surveillance on South Georgia. The Harriers on which the British depended lacked the radar fit and the endurance to "get up, stay up, and tell you what is coming." The U.S. specifically denied the use of AWACs planes to prevent involvement of Americans in the conflict.

Little is known about Argentine planning or control, or even why the invasion was launched with what seemed illogical timing. That which is known suggests that lack of experience and preparation, and especially the presence of severe interservice rivalries, made Argentine command and control one of its weakest points.

Argentina conducted wide-scale propaganda by television, radio and the print media. Great Britain established Radio Atlantico del Sur (dubbed by The Economist "Ascension Alice") in an attempt to demoralize Argentine troops. After the conflict, the British regretted that not enough attention had been paid to global propaganda. "Disinformation" was circulated or allowed to be circulated on both sides. Because the British government believed that the Vietnam war was lost on the American television screen, British reporters, the news, and especially television and still pictures were severely restricted. Most of an extraordinarily bitter conflict between the British media and the British government derived from this government outlook and from the fact that, unlike the smoothly working military, no contingency plan existed in that country for modern media in wartime. Lack of political will and administrative mismanagement kept technology from being stretched to its full limits where the media were concerned. Charges by
the media and countercharges by the government led to a six month
investigation by the House of Commons Defence Committee.¹⁹

In Argentina, there were incidents of reporter harassments, jail-
ings, and deportations, and rules were laid down for "self censorship"
of the news. For the most part, reporters were confined to Buenos Aires
or to areas north of it — 1000 miles from the battle zone — and de-
prived of news. But for a country where 100 reporters are said to have
"disappeared" since the military Junta assumed power in 1976,²⁰ reporters,
including British reporters, were in most instances treated quite decently.
Thanks to heavy British control of its media, the repressive Argentine
government looked quite good by contrast in the area of news.

The first three orders of the Argentine military government on the
Falklands were concerned with dismantling the Islanders' sophisticated
radio sets.²¹ But this apparently was not very effective. The Island
telephone was left intact throughout the campaign and a medical radio
link was left to supply health care to the more distant Islanders.²²

Following the war, British defenses underwent review, and a new
Defense White Paper was issued in December, 1982.²³ It outlined
replacements and new equipment to increase capability for wars outside
the NATO area and included beefing up of communications and information
capabilities in many areas. The Argentines also reviewed their
position. They plan, it is said, to shift from concentration on
guerilla operations to preparations for more "real" types of war. Arms
deliveries to Argentina, embargoed by several countries during the
conflict, resumed shortly thereafter.²³

---

¹⁹A Defense White Paper issued in June 1982 had been outdated by events
when issued.
All parties concerned have been eager to use the Falklands showcase to promote their sales of arms.\textsuperscript{24} The price of Exocets to the Argentines quadrupled and that of Super Etendards soared, while Harrier planes became popular items after this little war.\textsuperscript{25}

The Falklands conflict began and ended with dramatic communications and information situations, which were resolved by less than super modern means.

At the war's beginning when the Argentines invaded the Falklands, they immediately seized the cable and wireless office and the radio station. The Islands' British Governor, Rex Hunt, who had declared a state of emergency at 4:25 a.m. on the morning of April 2nd, was never able to communicate with London again. The Argentines gleefully proclaimed their recovery of the Islands to the world, while seven or eight hours went by with the British government not knowing if this was true or how to proceed. Hastings and Jenkins, two British reporters who covered the conflict and wrote a book called The Battle For The Falklands, say:\textsuperscript{26}

"...news of the crisis came exclusively from Buenos Aires for at least seven hours. The result was that the British cabinet was unable to confirm its key retaliatory decisions. It simply did not know what was happening and was unable to provide clear leadership. As one minister said grimly, 'We did not even know enough to be able to resign.'"

Consequently:\textsuperscript{27}

"...The Foreign Office frantically called the office of the Falkland Islands Committee to ask for a list of radio hams on the islands, but it was not until 4 p.m. London time that an operator in Wales picked up an on-the-spot confirmation of the invasion."

The reporters add that:\textsuperscript{28}

"...For nuclear strategists, it was a classic demonstration of the hiatus in authority which can follow a failure in communications at the outbreak of war..."
As the war's end approached — a week before the Argentine surrender at Port Stanley — Captain Red Bell of the Royal Marines, whose usual job was adjutant of the commando brigade's headquarters and signals squadron, was called upon by Lieutenant Colonel Mike Rose of the Coldstream Guards for a special detail. Bell was virtually the only Spanish speaking individual with the British in the Falklands. He had spent his childhood in Latin America, where his father worked for the UN, and Spanish was his main language. Rose wanted to make direct contact with the Argentines in a bid to get them to surrender. The Times gives this account:

"The British had worked out that they could make contact with the Argentines either by telephone or by using the short wave radio frequency on which Dr. Alison Bleaney on Port Stanley maintained medical contact with the outlying islanders.

"... (the calls and broadcasts by Captain Bell) were made at various stages from the assault ship HMS Fearless, and at other times from Estancia House, which was in the hills about 14 miles north-west of Port Stanley...

"Captain Bell made the first call, saying in Spanish: 'Puerto Argentino,* here is Fearless'... 'They must have been monitoring that net (Bell said). We were transmitting perhaps 20 minutes before they responded. We were quite amazed... Hussey** said he understood my message, but that it was for governments to negotiate, and that it was not really for us.' "(Brackets the authors').

Bell rarely spoke to anyone over the next few days, but he continued to broadcast stronger and stronger messages of reassurance and warning.

"'On the morning of June 14, Dr. Alison Bleaney answered (Bell said). After a brief conversation, she dashed off and I subsequently found out pleaded with Menendez, and then Hussey was dragged to the phone and he said: 'We are prepared to talk'."

For a background to the Falklands crisis, see Appendix 1.

*The Argentine name for Port Stanley.

**Captain Melbourne Hussey, one of the senior Argentine officials on the Falklands.
Chapter 2. The Armaments Proving Ground.

"No need to make your own weapons today: the world is filled with arms merchants who are happy to oblige any customers. Argentina is a classic example of a country with a modest arms industry of its own but a large and potent, if somewhat obsolescent, arsenal of weapons purchased almost exclusively from Western nations. Ironically, virtually all of Argentina's main weapons have been supplied by Britain or Britain's NATO allies."

The entire Falklands War was fought by Argentina with minimal input of its own technology. Its small navy was made up of old but updated American, British and West German built ships and submarines fitted with modern missiles and torpedos, often of British make. At least six of its ships were equipped with French Exocet surface-to-surface offensive missiles and British Sea Cat missiles for surface-to-air defense.

Argentina was never able to make much use of its ships, however, and after the sinking of its only cruiser, the General Belgrano, its fleet retreated behind the 12 mile coastal limit for the duration of the campaign. Although it never, in fact, did any damage, one of the larger Argentine submarines may have operated near the Falklands, for:

"...in at least two cases towed torpedo decoys were destroyed..."

A heavy expenditure of antisubmarine munitions by the British was due mainly to false alarms and the high cost of a mistake. At no time was the British Navy able to locate the larger submarines, despite its emphasis on anti-submarine capability.

---

*According to Time, Argentina makes some of its own small arms, but mostly by Belgian licensing arrangements, and 30-ton tanks and armored personnel carriers. These last are of West German design, however, and West Germany makes much of their equipment, including the main gun.

**Both sides had ship-based Exocet surface-to-surface missiles, about which little was heard during the conflict. It was the air-to-surface Exocet, possessed by the Argentines, which did the most damage and got all the publicity. Some surface-to-surface Exocets were mounted on truck beds by the Argentines, and one of these damaged the Glamorgan.
Norman Friedman says that:

"In the absence of some long-range detection system (such as the U.S. SOSUS) the British could not hunt submarines..." (Brackets Friedman's).

He cited the difficulties in detection posed by sea conditions and the shallowness of the water, and also noted defects in the British offense capabilities:

"...There have been suggestions that homing torpedoes, which are the primary U.S. and British ASW munitions, are inherently ill-suited to shallow water. Only two of the British frigates were armed with a more useful weapon, the Limbo mortar..."

The Argentine Air Force consisted of over 200 "front line" planes, and included American Skyhawks, French Mirages, Israeli Daggers (modified Mirages), some old British Canberra's, a few Italian Aeromacchi training planes with light bombing capability, and their own home grown prop-driven anti-insurgency Pucaras. The Argentine Navy had taken delivery of five of the fourteen Exocet-bearing French Super Etendards that it had ordered.

Although they were able to fly from mainland bases, Argentine Air Force planes flew at the edge of their range, leaving them little time for combat or fuel for maneuvering. The American-trained Argentine pilots were fearless (some say reckless), flying in over the wavetops to avoid British radar. This caused a problem for the British ships, which while loaded with electronics equipment had had their simple close-in antiaircraft weapons removed to make space for the electronics, for helicopters, and for Harrier launch pads. The Argentines learned to fly

---

* See page 82 for a description of SOSUS.

** Shallow water is also present in the Indian Ocean, for instance, he says, and could cause difficulties in future U.S. encounters there.
in over land, where British radar proved weakest. Aviation Week reported during the conflict that:8

"Argentine pilots have proved to be well trained and aggressive...and have learned quickly to minimize the effectiveness of the British missile and aircraft defenses."

But the Argentine pilots flew so low that sometimes their bombs did not explode since the timer set to protect the pilot did not have time to go off before the bomb’s impact. The Argentines were hampered by lack of radar in their planes which prevented night raids or flying in the Falklands foul weather. They were also unable to overcome the British advantage of electronically aided night fighting ground equipment.

The big winner for the Argentines was the air-launched French Aerospatiale Exocet missile. The French had assured the British when the crisis began that, although the Argentines possessed six or eight of this type of Exocet missiles, they lacked the capability of arming them for air launch from the French built Super Etendard. Obviously, the Argentines found this capability, and "who armed the Exocet?" became the subject of intense controversy. After the war was over, a French engineer in Argentina said that he and his team fitted this missile to the Super Etendards during the time of combat. This created a huge flap, since the French had been helpful to and solicitous of the British during the war.9

The air-launched Exocet is a sea-skimming "fire and forget" radar-evading missile. Launched by the aircraft from a distance of up to 43 miles, the missile is given target range and bearing by the plane's

---

8Hastings and Jenkins say that the Exocet that hit the Sheffield was not fired from the Exocet's 40 odd mile range limit, but rather at a "point-blank" range of six miles, and that it therefore arrived two and one-half minutes after being picked up on the Sheffield's radar, rather than the 20 minutes warning time the Navy had been told to expect. None of the other sources cited in this report have indicated this range, which would be a crucial point. Aviation Week says that the Exocet that hit the Sheffield was launched at a range of 23 nautical miles.10
computer. After launching the missile, the plane then flies home to safety from counter-attacking missiles or aircraft. When fired, the missile drops to a few feet above the sea surface, where it skims along no matter how rough the waves. At about eight miles from target, its own radar takes over and homes it in on the target. In four firings, the air-launched Exocets destroyed two British ships, the highly computerized destroyer **HMS Sheffield** and the civilian supply ship **Atlantic Conveyor**. A third British vessel, the **Glamorgan**, was damaged, not by an air-launched Exocet, but by a surface-to-surface shipboard type Exocet which had been installed on a truck flatbed and converted into a land installation.

There are indications that communications aboard the **Sheffield** interfered with that ship's early warning systems.

According to Colonel Alford:  

"*...HMS Sheffield appears to have had her search radar switched off at the time she was attacked because she was using her satellite terminal. I cannot say this led to her loss but it must have been a contributing cause, for she certainly did not have time to fire chaff in the path of the Exocet missile. If interference between ship's radar and satellite use in a high threat area does lead to the temporary switching off of search radar, something is seriously wrong.....*"

And **Norman Friedman** says that:  

"*...she (the Sheffield) was reportedly unable to operate her ESM (electronic support measures) suit while communicating via her SCOT satellite terminal. Ironically, she was probably using SCOT rather than conventional high-frequency radio in view of the DF (direction-finder) danger the latter presents...*"

Friedman later cited the silence of the **Sheffield** as being part of the **British use of "passive" electronic countermeasures:**  

"*...the Sheffield was reportedly on 'silent' picket station...trying to avoid any emission except that of her satellite transmitter.*"
Anthony Preston, in his book on the Falklands, gives this description:

"... a message was apparently being transmitted to Fleet HQ at Northwood on the satellite communications link. The amount of electro-magnetic energy generated by the type 966 warning radar ... interferes with the satellite transmissions, and to prevent this the radar set had to be shut down. This did not mean, however, that the Sheffield was robbed of radar cover, for the flagship Hermes was providing her with a radar picture by means of a data-link. (Emphasis added.)

"...In the Operations Room a suspicious reading was seen on the Central Action Information Organization (AIO) plot. Three aircraft targets were identified, but when they were seen to turn away it was assumed that they were merely testing the Task Force’s defences...

"Then the Electronic Support Measures (ESM) equipment began to flash a warning that a search radar had locked on to the ship. There was apparently some delay in comprehending the significance of this ESM reading, and by the time the "PeeWo" (...)Principal Warfare Officer) realized that it was a missile’s homing head there was only time to shout 'take cover'..."

Preston, who complains bitterly about the reduced size (for budgetary reasons) of the type 42 destroyers like Sheffield, also said:

"The main weakness of the type 42 destroyers in electronic warfare was a result of their cramped dimensions, for the Operations Room turned out to be too small to allow the ESM and the ECM (Electronic Support Measures and Electronic Counter Measures) to be integrated with the main Action Information Organization... Thus when the ship's ESM detected the approach of the Exocet there was a fatal time-leg before the information could be interpreted and acted upon."

Preston also said that the Sheffield’s big "double bedstead" radar was 1950’s technology, whose slow data-rate could not cope with modern high speed targets.

The Argentine success with the Exocet against the Sheffield is said by some of the British to have been a bit of a fluke. The warhead did not detonate, they said, but hit the ship's command center, where its
excess fuel started an uncontrollable fire. The French, who are
defending the reputation of their arms used in the Falklands, say that
this is not so:¹⁶*

"...French investigators said the missile is believed to
have exploded inside the ship as a result of the planned
delayed detonation. 'The missile is programmed not to
explode the instant it hits the ship but rather to penetrate
and then detonate,' an Aerospatiale official said. 'This is
what happened with the Sheffield. The missile probably
exploded in an open area such as a room within the ship and
this is why the structural damage did not seem extensive
from the exterior.'

"'If a missile could result in all the damage suffered by
the Sheffield without the warhead exploding, I don't think
we'd have to spend the extra money equipping missiles with
warheads,' he said.'"

The French are also defending the performance of the Roland missile
in the Falklands. This missile is built by France's Aerospatiale and
Germany's Messerschmitt-Boelkow-Blohm as a joint Euromissile project.

One major defect the Sheffield and other ship losses revealed was a
lack of British defense planning for fire damage control.¹⁸ Norman
Friedman says that:¹⁹

"...many of the current computer programs used to analyze
warship survivability do not really consider fire as a
factor, because in an analytical sense it is too difficult
to deal with..."

He says that fire is not disregarded, but that it is too hard to
determine whether it has been successfully countered.

Over-centralization of the command and communications centers,
which on the Sheffield were destroyed by the single missile, is another
modern ship defect found to need correction.²⁰

* The officers of the Sheffield are said to discount reports in Great
Britain and the United States that the Exocet warhead did not explode.
The ship's Captain Sam Salt is quoted as saying: "'I was there, and
there is no doubt that the warhead exploded.'"
Two days before the Argentines sank the HMS Sheffield, the British nuclear submarine HMS Conqueror had sunk the Argentine cruiser General Belgrano. This 43-year-old survivor of Pearl Harbor was originally reported to have been sunk by two British Tigerfish torpedos. The Tigerfish, which is said to be super-silent, almost impossible to detect, and deadly accurate with a range of up to 20 miles, is controlled by a thin wire "tail" attached to the ship's computer. This wire pays out as the torpedo flies along until, at the very end, the Tigerfish's own homing device takes over.

Later reports — after the furor over sinking rather than damaging the vessel broke out — said that it was hit by more ordinary World War II type torpedos from the Conqueror, and that they were used because of:

"...doubts about Tigerfish's reliability..."

The Belgrano sank, it was said, because she was old and no longer watertight. But Colonel Alford said the nuclear submarine "a blunt instrument" and said that it "had no intermediate capability." He did not say specifically that it used the Tigerfish, but said that it had the choice of either sinking the Belgrano or leaving it alone.

The Belgrano sinking resulted in the deaths of three hundred and fifty Argentines and led to a substantial escalation of the Falklands war.

Great Britain eventually brought more than 100 ships to the South Atlantic, and probably five nuclear powered submarines also took part in the war. The subs were used for surveillance of the Argentine mainland, for intelligence gathering, and in the Belgrano instance, for sinking a ship.
Great Britain's air power was limited to 28 carrier-based Sea Harriers and 14 RAF Harrier GR3s, armed with American Sidewinder missiles, and about 200 helicopters of seven different types. The British Sea Harrier vertical takeoff and landing plane, untried in combat before the Falklands, proved to be tremendously versatile. The Sea Harrier's targeting radar, the Blue Fox system, was found to be less than ideal, however. It apparently could not "see" low flying targets against either a land or a sea background. Planned improvements to the radar and warning receiver systems were announced in the December 1982 White Paper.

The Sea King helicopter proved extraordinarily vulnerable to bad weather and other stresses of this particular campaign. An unacceptably large number of them -- five -- were lost to accidents. Four Sea King helicopters: 24

"...were modified for the use of the most modern American passive night goggles. ...which permitting flying... in total darkness with exceptional accuracy... (and were) one of the decisive British weapons of the war."

The Gazelle, designed for reconnaissance and command and communications, proved very vulnerable to, and defenseless against, ground fire.

The worst disappointment in equipment was the British Sea Dart surface-to-air missile. Considered the mainstay of the air defense of the British fleet, it, along with the Sea Slug, was the only British

---

*Norman Friedman 25 indirectly blames the British Official Secrets Act for the Sea Slug and later Sea Dart's poor performances. That law, by precluding informed public debate on defense policy has permitted "gross self-delusion" by the British in their weapons development, he says, "...for many years the Sea Slug antiaircraft weapon was described as over 90 percent effective, even though it was common knowledge that it was so unreliable that it often refused even to leave its launcher..." Silence on this point by defense reporters then led to a lack of public pressure "...to correct the major faults of the later Sea Dart..." Friedman said.
naval anti-aircraft weapon used in the Falklands which had a range of more than 25 miles. Although the Sea Dart's launcher automatically reloaded, the tracking radar could not switch to a new target until the first had been destroyed. It therefore let parts of any attacking group of planes get through. The Sea Dart's radar is also designed for high-flying missiles and aircraft and it could not cope with sea-skimmers or with small targets at close range. The British claim, however, that the Sea Dart, by denying the Argentine aircraft the use of high altitudes, forced them to operate within range of the Harriers.\(^{26}\)

The British Aerospace Sea Wolf missile, using an American radar system, proved itself to be effective against aircraft, downing five. But this was not the purpose of its design. It was meant for self-defense against missiles. It is said that it could possibly have destroyed the Exocet missile, but this did not come to a test. Initially only two and later four British ships in the South Atlantic had been fitted with the Sea Wolf. It had been planned at one time for other ships in this task force, but these plans had been dropped due to the high cost.\(^{27}\)

The Sea Wolf also had its problems. Its computer became confused when multiple aircraft approached simultaneously. During air attacks following the landing at San Carlos:\(^{28}\)

"...(the frigate Broadsword's) Sea Wolf was switched on. Its computer examined the two approaching targets, almost indistinguishably close together, sought to decide which to attack, and found the decision electronically too difficult. The missile system switched itself off..."

The Sea Wolf was also confused by ground clutter in the Falkland Sound.
Friedman discusses the problems of ship-borne missiles, including the British Sea Wolf and Sea Dart:  

"The British ship-borne missile systems suffered from the limitations of virtually all naval air-defense systems, vulnerability to saturation. That is, a ship usually has to devote one of her limited number of guidance channels to each incoming target, and that channel remains tied up throughout the engagement with the target. Both Type-22 (ships armed with Sea Wolf missiles) and Type-42 (destroyers with Sea Dart missiles) are limited to two such channels. This problem was graphically illustrated in the case of HMS Coventry. She first detected two fast, low-flying incoming aircraft and locked on her two Type-909 guidance radars. Two more then approached from the other side and hit her with three bombs, which destroyed most of her port side and sank her. Presumably she never had time actually to engage the first two aircraft. This last point is significant. Type-42 has a manually operated combat system, which first detects a target on the air-search radar, then redetects it on a target-indication radar ... and then employs one of two guidance radars. The Sea Dart missile itself introduces further delays, since it requires two minutes of warm-up time (apparently on the launcher) during which its gyro line up. Almost certainly, warmed-up missiles cannot be maintained indefinitely on the launcher, particularly in cold weather like that the task force experienced in the South Atlantic." (Brackets Friedman's).

Land-based missiles were used by the British to destroy numerous Argentine aircraft. The British Aerospace Rapier, whose electronics suffered greatly during the sea voyage, nevertheless destroyed 14 planes and possibly six others. The effects of dampness from the sea voyage and Falklands weather were especially harsh on the Rapier and other land based missiles, as well as other electronic systems.

The December British White Paper says:  

"Although combat aircraft were quickly fitted with chaff and flare dispensers and some active ECM (electronic counter-measures) equipment ... the lack of defense suppression weapons to attack enemy radars exposed the Harriers to heavy and accurate ground-fire."

Very interestingly:  

"... the British were unable to jam modern radars such as the Westinghouse Corp. units supplied in 1981 to Argentina
by the U.S. ... One of these radars was installed on a mountain overlooking Stanley ... and also assisted in the attack on the carrier Invincible."

Nowhere in NATO have defenses been developed against "friendly" weapons, which are increasingly found in "enemy" hands. Only Israel, which is constantly at war, has made any progress in developing such "friendly" defenses.

On the Argentine side, electronic countermeasures of all sorts were virtually absent, a major advantage for the British.

Norman Friedman has this to say about British electronic countermeasures: 32

"... Understandably, the royal Navy has not been very free with information concerning its doctrine; for example, it has not indicated publicly whether it ever uses active ECM, apart from chaff systems. There are some indications that it much prefers passive operation. (And the Sheffield on "silent picket" duty is cited). (Brackets the authors').

... "British policy appears to favor the use of decoys rather than jammers, since reports emphasize both chaff and novel forms of deception. For example, Plymouth, in company with Sheffield, reportedly fired clouds of chaff almost continuously during daylight hours, without any reference to ESM (Electronic Support Measures). Helicopters were also reportedly used to decoy missiles, carrying radar-warning receivers and, in the case of the Lynx, radar reflectors. The reported tactic was for the helicopter to dip low so as to simulate a ship, then to climb so as to break lock. ..."

An Aviation Week article also stressed the British use of almost continuous barrages of chaff, but said that Roland missiles aimed at Britain's Vulcan bombers: 33

"... were jammed by active ECM equipment removed from Blackburn Buccaneer strike aircraft and fitted on the Vulcans at the start of the war..."

The article described the Corvus chaff launching system used in the Falklands as having a solid fuel rocket launcher which dispersed the chaff up to 1.2 miles from the launching ship. No failures of the
rockets to fire were reported, but as a result of the Falklands experience, needed improvements were said to be an integrated ECM system which would provide protection against laser-guided and infrared seeking missiles as well as radar-guided ones, and an automated system to permit rapid shifts of mode and direction control. During the Falklands conflict, shifts from mode to mode had to be made manually. An advanced system called Shield being developed by Plessey Aerospace will have a range of up to 6.2 miles, will have infrared decoys to simulate large ships, and perhaps a laser decoy system, it is said. The four Shield chaff dispersal modes are described by Aviation Week as:

"Confusion mode, with chaff deployed eventually out to 10 km. and used in cases where the ship is not certain it is under attack.

"Distraction mode, in which an inbound missile is confused before lock-on by a number of decoy targets placed around the ship.

"Dump decoy mode, in which a missile that has locked on to the ship with an active radar seeker is deceived by an active jammer and its lock transferred to a precisely placed chaff cloud.

"Seduction or centroid mode, a 'last-change' method, in which a chaff cloud is placed immediately upwind of the ship and allowed to pass quickly over and around the ship from bow to stern, transferring the missile's radar lock from the ship to the chaff cloud. This can be used on missiles close to the ship..."

The Shield system is expected to be ready for initial deployment in 1985.

The most crying lack on the British side was the absence of any long range airborne early warning system. While the U.S. appears to have acceded to most British requests, AWACs were specifically denied to prevent the involvement of U.S. personnel. The Nimrod airborne early warning system is not yet operational. Late in the war, some refueling
capability was found for British Nimrod maritime patrol craft, a primarily anti-submarine plane. But it still lacked the range to prove effective. Lack of airborne early warning permitted Argentine pilots, flying beneath the ship's radar, to be on top of targets before detection. It also allowed the Super Etendards to move into position — miles away — for Exocet firing, with the British none the wiser. In the South Atlantic, therefore, the British found themselves defenseless against the Exocet. When the conflict was over, the British devised an airborne early warning system by mounting Searchwater radars on Sea King helicopters based on the three aircraft carriers there. These, however, are heavy, says Friedman, and will require such volumes of petroleum that the British may not be able to keep them in the air sufficiently.  

The British say that they saved their aircraft carrier, HMS Invincible, by decoying two Exocets with aluminum chaff. If so, this was accomplished at the expense of the loss of the supply ship which was loaded with vital equipment. Again, the French deny that the decoy took place.  

"The French said a pair of AM 39 Exocets fired successfully by two Super Etendards against the Atlantic Conveyor were not diverted to the vessel from another target by countermeasures. They claimed the ship was the original target designated by two Super Etendard pilots. The pilots probably thought they had targeted the aircraft carrier HMS Invincible because of the size of the radar return and because the ship target was not identified visually before missile launch..."

Colonel Alford, remarking that the Sheffield did not have sufficient time to fire anti-electronic chaff in the Exocet's path, said that:  

"The other Exocet loss, the container ship Atlantic Conveyor, sadly became a target through chaff deflection. Chaff broke the missile lock and the missile looked for a new target and found the Atlantic Conveyor which of course
(being a commercial ship) had neither high-definition search radar nor chaff defenses." (Brackets the authors').

But a French official is quoted as saying: 38

"'We don't believe British accounts that the missiles were targeted at the HMS Invincible and were diverted by ECM, and that the Atlantic Conveyor had the bad luck to be in the area'..."

The destroyer Glamorgan apparently did not have chaff, either.

When attacked by a truck-bed mounted surface-to-surface Exocet from the shore at 19 miles distance: 39

"...her navigating officer ... saw on the radar plot a small 'blip' travelling at high speed towards the ship.
Interpreting this correctly as an Exocet, he ordered the ship to turn away from it, to reduce the target-echo.
Thanks to his quick thinking there was a gap of 40 seconds during which the 6000-ton ship could swing around and present her stern..."

While damaged, the Glamorgan was not sunk.

The British have attempted to downgrade the Exocet menace, still a grave threat to occupying troops. The French, who honored an arms embargo during the conflict, resumed filling Exocet and Super Etendard orders when the war was over.

The new arms technologies based on electronics were omnipresent in the Falklands conflict. But they were not always put to use. When the poorly trained Argentine Army surrendered to British troops at Port Stanley: 40

"...the victors gazed in astonishment at the huge stockpiles of weapons, ammunition and equipment the Argentinians could have used against them. ...Exocets on trailers, radar-controlled anti-aircraft weapons, missiles, artillery, shells..."

The authors of The Battle for the Falklands 41 note:

"The simple truth is that the Argentine army had no conception of how to fight a war against a major enemy. Their American training had taught them to rely too heavily
on resources rather than human endeavor. An SAS* officer remarked during the campaign on the problem that afflicts many Third World armies, of concentrating on acquiring expensive technology rather than applying basic training and skills.

...‘They all secretly believe that there is some pill you can take if only you will tell them what it is.’ (The SAS officer said)..."

Norman Friedman, who added "...night vision equipment in great profusion..." to the list of Argentine resources not used in Stanley said that: 42

"...one of the main lessons of the war was just how misleading hardware comparisons can be..."

---

*SPECIAL AIR SERVICE
Chapter 3. Intelligence Failure or Political Misjudgment.

Two days following the Falklands invasion by the Argentines, British Foreign Secretary Lord Carrington and two of his ministers resigned. A stormy Parliament had charged that the Foreign Office had ignored available intelligence, had misjudged the gravity of the Falklands situation, and had failed to act to prevent the Argentines from taking possession of the Islands.

How could Mrs. Thatcher's government, said its detractors, have been caught off guard by, of all countries, Argentina, which had been a target of heavy British espionage for years? Mr. Ted Rowlands, during the parliamentary debate over the Falklands invasion, is reported to have said:¹

"...As well as trying to read the mind of the enemy, we have been reading its telegrams for many years..."

According to Newsweek:²

"...A British surveillance station on Ascension monitors naval communications in the South Atlantic. As a NATO ally Britain also has access to U.S. intelligence information, including data from listening posts in the Panama Canal Zone and from White Cloud satellites. Full of political dissidents, Argentina is a hotbed of human spies as well..."

The Economist gave the following description of the British intelligence system:³

"The job of supplying Mrs. Thatcher's overseas and defense cabinet committee with intelligence summaries falls to the cabinet office's joint intelligence committee and its supporting joint intelligence organization. This committee is under foreign office chairmanship. It has a wealth of sources on which to draw. These include:

...Signals intelligence. This is usually the most reliable and valuable raw material. The signals station on Ascension Island in the South Atlantic is well placed to listen in to Argentina. The results are pooled between the British government's communications headquarters (an arm of the foreign office) and the national security agency in Washington. There are, no doubt, Argentine computer-based codes that cannot be cracked."
...Photographs. The build-up of the Argentine forces was observed from American satellites, and passed on to Britain as a regular gift from Washington's national reconnaissance.

...Routine political reporting. The British embassy in Buenos Aires, with contributions from its military and naval attaches, reports regularly to the foreign office, and presumably has its own secret intelligence sources within Argentina."

The Economist added that the joint intelligence committee consisted not of ministers but of intelligence officers and civil servants, and that it included members from all of the secret agencies. About 90 percent of the intelligence passed to the ministers was in "processed form," it said, and:

"...What gets through to the politicians is very much in the hands of the committee's professionals."

Great Britain and Argentina had been arguing over ownership of the Falklands for 149 years and seeking some means of settlement since 1965 (see Appendix 1). Argentine politics had been chaotic for decades but the Falklands was one issue the Argentines could rally around. The Junta, in power since 1976, had been spending heavily for arms ($55, $54, and $11 per capita respectively for military, education and health programs). A new president, Leopoldo Galtieri, in office only three months, was faced with rising internal dissatisfaction and disorders. Just two days prior to the invasion, six street demonstrators were shot and wounded and 2,000 people arrested in the biggest protest since the Junta assumed power. Galtieri was more militant on repossessing of the islands than had been his predecessors, so an invasion attempt was thought possible by the British. It was thought improbable, however, since it had been threatened for so long and had never been executed. Even if it occurred, logic (to the British) dictated that it would not take place before the second half of the year, when winter had set in.
At the time of his resignation, Lord Carrington maintained that the Argentines themselves had made no invasion decision until at least March 29th. Indications are strong that a decision was, indeed, taken, only at the last moment:

"...the timing of the Argentine invasion indicates a lack of concern for minimizing Britain's ability to respond. Much of the British fleet was home for Easter, which facilitated the rapid assembly of a task force. Two months later and the British position would have been more stretched, with a group of warships including the carrier HMS Invincible in the Indian ocean. Any force which reached the South Atlantic would only have done so at the height of winter and after a long delay. Furthermore, Argentina was only just starting to take delivery of new arms, including the Exocet-carrying Super-Etenards from France. Within a few months, its own forces would have been much better equipped."

Several British ships were also due to be sold or decommissioned, which would also have limited Britain's response. It has been suggested that an incident in which some Argentine scrap metal merchants raised an Argentine flag on South Georgia island on March 19th, coupled with the later rioting in the Argentine capital, may have precipitated the invasion. Suggestions have also been made that Admiral Jorge Anaya, the Argentine Navy chief "who seems to have masterminded the eventual invasion," might even have set up the South Georgia incident.

However, there are some reasons for Argentina to choose to invade at the time it did:

"...international conditions...looked as conducive...as they were ever likely to be. Argentina's links with both superpowers were in good repair. In Washington, the Galtieri regime was judged to represent the acceptable face of military dictatorship. Cooperation was developing on the support of other right-wing regimes in Central America. The Soviet Union had reason to be grateful for supplies of grain at a time of American embargo. The hope was that Washington would not be too cross if Las

*Sir Michael Palliser (a member of the War Cabinet) said that it was "sheer lunacy," not to have waited at least until June, when the task force probably could not have made it into the South Atlantic.
Malvinas were retrieved, while the Soviet Union would veto any strong action in the UN Security Council. As for Britain, it had managed to convey the impression of intransigence in negotiations on the principle of sovereignty but no real interest in holding on to the islands."

Numerous accusations were made that the Thatcher government had had prior knowledge of the impending invasion days or even longer before it occurred; that British intelligence had the raw intelligence but that it had not been sorted through; that radio traffic picked up in the days before the Argentine fleet sailed (supposedly on routine maneuvers) had indicated an invasion attempt; that the Foreign Office had advised sending submarines into the area well ahead of time, but that this had been rejected by the cabinet's defense committee; and that specific information concerning an impending attack was available but the attention of the British ministers could not be brought to focus on anything -- like a preventive naval force -- that might cost money.

One assertion that occurred on many occasions was that:  
"Clear warnings of the invasion from American sources were circulating more than a week beforehand."

The Franks Committee says of this assertion of prior warning by America:

"No intelligence about the invasion was received from American sources, before it took place, by satellite or otherwise."

Time had reported in April that:

"...The U.S. learned of the impending invasion only 48 hours in advance, through British rather than U.S. intelligence reports. (Subsequently, U.S. intelligence officials discovered that the Argentines had been planning the operation in strict secrecy for two months.)... (Brackets Time's.)"

Sir Michael Palliser, saying that there had been lots of rumors but "of hard intelligence there was none" prior to invasion, noted that
an interesting feature of the affair was that the United States
Administration was even more surprised by what happened "than we were." He said that when the British drew the attention of Mr. Haig to what
looked like happening a couple of days before it happened, that was the
first he had seen or heard of the particular intelligence on which "we
were basing our démarche." The Prime Minister also made a statement to
this same effect: 14

"'Our American friends were just as amazed as we were.
Utterly amazed.'"

Mrs. Thatcher said.

Interviewed by BBC on January 18, 1983, former Secretary of State
Haig was reported to have said that: 15

"...the United States had not been looking for and did not
seek indications of the invasion in the weeks before it
happened..."

Hastings and Jenkins say: 16

"The British maintain that CIA material of any value before
the invasion was 'sparse to non-existent.' In fact, the CIA
had tended to leave Argentina to Britain to watch, given her
long-standing Falklands interest. Britain, on the other
hand, had been progressively reducing covert activities in
South American to cut costs... As a result the balance of
'human intelligence', known as 'humint,' to sigint shifted
dramatically in favour of the latter..."

They went on to say that there was copious sigint both from NSA in
Washington and GCHQ at Cheltenham, England, but that this was very raw
data. It was well known, they say, that the Argentine ships were at sea
in force but the sigint traffic produced could just as well have been
due to the publicly-announced naval exercises of Argentina with Uruguay.

At another point, Hastings and Jenkins said: 17

"For more than a generation, in the matter of intelligence,
as in every other area of budget-conscious defense,
attention had been focused decisively upon eastern Europe. Even the defense attaches in most British embassies had
concentrated more on selling arms to their host countries than upon intelligence gathering..."

An interesting assertion was that there had been massive withdrawals of Argentine funds from London banks shortly before the invasion, of which the Government should have been aware and to which it should have reacted. The Franks Committee Report comments:^18

"We are satisfied that the Government had no information about such a movement of funds. The deposit liabilities of United Kingdom banks to overseas countries are reported to the Bank of England on a quarterly basis. The reporting date relevant to the period before the invasion was 31 March 1982, but, because of the complexity of the figures, they normally take several weeks to collect. Withdrawals by Argentine banks in March would, therefore, not have normally been reported until May. After the invasion, the Bank of England asked banks for a special report, and this showed that around $1/2 billion of the original $1-1/2 billion of Argentine funds were moved out of London in the period running up to the invasion, much of it on 1 and 2 April. Since the withdrawals were in dollars, there would have been no effect on the sterling exchange rate to alert the Bank of England." (Emphasis added).

After six months of study, the Franks Committee concluded that the Thatcher government could not have foreseen nor probably have prevented the invasion. The decision to invade, it said, was taken by the Junta "at a very late date." However, it said that:^19

"...It might have been possible to give some warning of the military preparations preceding the invasion, if there had been direct coverage of military movements within Argentina in addition to coverage of its general military capability. But it would have been difficult to provide comprehensive coverage of these movements in view of, among other things, Argentina's very long coastline and the distance of the southern Argentine ports from Buenos Aires. The British Defence Attaché in Buenos Aires told us that his section at the Embassy had neither the remit nor the capacity to obtain detailed information of this kind. By the time the diplomatic situation deteriorated at the beginning of March, it would have been difficult to evaluate such information because of the absence of knowledge about the normal pattern of Argentine military activity."
The Franks Committee also reported that: 20

"...There was no coverage of Argentine military movements within Argentina, and no advance information was therefore available by these means about the composition and assembly of the Argentine naval force that eventually invaded the Falklands. There was no intelligence from American sources or otherwise to show that the force at sea before the invasion was intended other than for normal naval exercises. No satellite photography was available on the disposition of the Argentine forces. The British Naval Attaché in Buenos Aires reported the naval exercises when he became aware of them, mainly on the basis of Argentine press reports."

Some shortcomings in the handling of intelligence were noted by the Franks Committee, and it was indicated that the Joint Intelligence Organization could have treated the assessment of Argentine intentions more adequately and that different conclusions could have been drawn from existing information.

Colonel Alford maintains that there was a failure of strategic intelligence, because: 21

"...I believe the warning indicators were there but were discounted at the highest political levels..."

He quotes former Defense Minister Denis Healey, who said:

"Inevitably, once a part of the Foreign Office has taken a view on an issue ... it tries to interpret intelligence so as to confirm that view and tends to discount intelligence which disagrees with it."

Alford adds that:

"...An intelligence review body at the highest level, independent of government departments, could prevent future misgivings."

Hastings and Jenkins remark that: 22

"...In an age of 'total communication', the lack of clear advance signals between Britain and Argentina is astonishing and a poor comment on both governments."
Chapter 4. British Command, Control, Communications and Intelligence

One of the first acts of the Prime Minister at the outset of the crisis was to set up a small "War Cabinet" which is shown in the following chart.  

Reprinted by permission. The Economist, April 24, 1982.

Political control over activities in the Falklands is said to have rested with this war cabinet throughout the conflict. For fear of security leaks, the full cabinet was denied operational information, and specific military initiatives did not have full cabinet endorsement.
Many senior ministers and most junior ministers received little more information that did ordinary members of Parliament.\textsuperscript{2}

Because, it is said, of:\textsuperscript{3}

"...the troubling memory of how Sir Anthony Eden, then Britain's Prime Minister, had hampered the British task force during the ill-fated Suez invasion of 1956 by issuing a stream of contradictory orders to his commanders..."

the Thatcher government, while determined to maintain political control over the extent of the conflict and its level of violence, was also determined not to interfere with actual military operations. The war cabinet was thus purported to have taken the fundamental decisions on both diplomatic and military activities but not to have given advice on how these decisions were implemented.\textsuperscript{4}

Neville Trotter, writing in the \textit{Armed Forces Journal International},\textsuperscript{5} gives the command structure for the Falklands which is summarized as follows:

.. Admiral of the Fleet, Sir Terence Lewin, was Chief of the Defense Staff, and he attended the meetings of the War Cabinet every day. Only he and his staff had a direct line to Northwood, England, where Admiral Sir John Fieldhouse, Commander-in-Chief, Fleet, was in overall command of the Falklands operation throughout. Lewin and his staff spoke by phone to Northwood many times a day, and met at Northwood three times a week. There was never any direct contact between the Ministry of Defense and the Task Force, although Lewin could easily have picked up the phone.

.. Lewin gave the first directive, arrived at by the War Cabinet, to Fieldhouse: "Land on the Falklands and recover possession". Lewin and a "semi-permanent committee in Cabinet Office..." drafted the Rules of Engagement. Fieldhouse and his staff determined the San Carlos landing site and presented it to the three Service Commanders. Slightly amended, Lewin presented this to the War Cabinet. Otherwise, the three Service Commanders had little to do with the operation beyond providing and coordinating Task Force support.

.. Rear Admiral John Woodward, the most junior of the royal Navy's seagoing admirals, headed the Task Force. From the flagship \textit{Hermes}, he exercised tactical command of both land
and sea forces until headquarters of the commando brigade was established ashore. The land command then came directly under Fieldhouse at Northwood, via a satellite channel at Ajax Bay,* and was no longer channeled through Woodward. Woodward, on Hermes, retained control of the Harriers and the 200 helicopter force. After the landing, the Fearless became the "divisional headquarters" for the land force.**

.. The five nuclear submarines were always under the direct control of Northwood.

.. Brigadier Julian Thompson of the Royal marines was in command of the first land forces that went ashore. He remained in local command for nine days after the landing and through the battle of Goose Green, when the permanent Land Force Commander, Commander of the Royal Marines Commando Forces Major General Jeremy Moore, took over. Moore moved early with his staff to Northwood, took part in the operational planning, then flew with his staff to Ascension and joined the QE-2 to South Georgia. After Moore's departure, Fieldhouse had another deputy at Northwood for land forces, and also one for air.

Fieldhouse effected his command from Northwood, England via satellite communications. The local commanders operated under Rules of

* A report on the British Army in the Falklands says that this equipment was:

"...landed at San Carlos on May 25, 1982, and set up next to the refrigeration plant at Ajax Bay. This rear link remained operational for the whole of the campaign and provided not only communications back to UK for Force Headquarters but also, via an 'ad hoc' Commsen (communications center) and HF (high frequency) secure telegraph links, for the two brigades." (Brackets the authors').

The Sunday Times Insight Team reported an accident which illustrates the fragility of communications systems: "...at one stage, the 'Sat Com' (Satellite Communications Center) at Ajax Bay ... was simply blown away. The one Chinook helicopter that had survived from Atlantic Conveyor landed too near and the draught lifted the Sat Com tent bodily into the air, overturning the vital transmission dish. For several hours there was no communication at all between the Falklands and London."

**Trotter said the importance of the command ship, Fearless could not be overemphasized. It was especially built for that work, used 36 radio circuits, and handled up to 3,500 signals a day, he said. Hastings and Jenkins say:

"...On the command ship Fearless well over 100,000 signals -- a million copies in all -- were passed before the war ended. One officer calculated that there had been over 5,000 calls to the bridge in the same period."
Engagement, which were said to place "loose" restraints upon them. These restraints were said to be most importantly:

"...that casualties be kept to a minimum...that there should be no bombing of the Argentine mainland airbases and that the timing of the invasion should be a matter of political decision."

It is said by Trotter that Fieldhouse gave the local commanders only "broad directions," but Northwood was in constant communications and apparently kept a tight rein. Hastings and Jenkins report instance after instance where immediate decisions were made directly by the Northwood command.

Although tremendous stress has been put by the British on the lack of political pressure and the value thereof, some political pressure was obviously present. This was especially true after the San Carlos landing losses, when:

"After four days of almost unbroken bad news, London needed a tangible victory."

The Battle of Goose Green, say Hastings and Jenkins, was a "politicians battle." Brigadier Thompson, they report, suffered terrible reproofs from England because he could not move swiftly enough to establish a deeper beachhead, and thus satisfy public opinion that the landing losses were justified.* The pressure was exerted via Northwood, however, and on the whole, political interference was apparently kept to a minimum.  

---

* Major General Moore apparently had a better sense of public relations. Hastings and Jenkins report that after he took over (see note 12): "...(he dispatched) a long, cheerful nightly signal to London throughout the war, which created an impression of constant activity for the encouragement of Northwood and the war cabinet even when in reality little was taking place."
Communications between England and the battlefield 8,000 miles away were described by The Economist:

"...The task force and Whitehall mostly communicate by bouncing radio signals off a satellite "parked" in an orbit 22,000 miles above the equator. These signals are automatically relayed to the big American communications centre on Ascension, then on to Britain. The messages are encrypted by a computer system. The code cannot be broken with today's techniques. The radio frequencies are automatically changed many times per second to prevent jamming and interception."

The British military satellite, Skynet 2, was launched in 1974 with an expected life of five years, but during the conflict, had been in operation for eight.

Communications with the submarines were said to be more difficult, but messages, said The Economist, were being broadcast at certain specified times, during which the submarine:

"...trails a long invisible aerial on the surface of the water..."

To be able to transmit, the antenna, it was said, must be above the water's surface, and thus risks giving the position of the submarine away. Signals from the submarines were said to be compressed electronically to make their interception "improbable."

Trotter states unequivocally that the submarines were under Northwood's direct command. And U.S. officials confirmed and reconfirmed that the United States was giving satellite aid to the British to help in communications with their submarines. The Washington Post reported on April 14, 1982, that:

"...(U.S. officials said) the British have requested and received from the United States the use of a channel on a U.S. communications satellite to help London communicate with their submarines patrolling off the Falklands..."
On April 15, The Washington Post again reported: 19

"...U.S. officials confirmed again yesterday that the Reagan administration is allowing Britain to use U.S. facilities to communicate with Royal Navy submarines. But they said the communications satellite channels being used for this purpose ... are nothing more than the Royal navy normally receives as part of North Atlantic Treaty Organization operations.

Other communications through U.S. military satellites were obviously conducted by the British during the war, some using portable* communications systems. The Financial Times, describing the Maritime European Communications Satellite (MARECS) activities, said in November 1982: 21

"In the field of defense ... the cost of mobile satellite communications is less of an impediment. At the outset of the recent Falklands conflict, the British fleet was hurriedly fitted out with aerials so that it could communicate both via MARECS and through the U.S. military satellite network."

The ability to communicate with submarines was certainly not clear during the war when alleged communications difficulties sparked a furor when the General Belgrano was sunk. The sudden escalation of the level of violence and intensity of the war seemed to the British press and public to violate the Rules of Engagement. A furious article in the London Sunday Times said: 22

"...that crucial blow was delivered without any consultation, political or otherwise, because of a simple technological fact. Conqueror, and the other British submarines...are out of communication for most of the time. They cannot radio back to the task force commanders, let alone London, without surfacing. ...

"...did the commander of the Conqueror equate sinking a cruiser -- with over 1,000 men on board -- with his government's policy of minimum force?"

*The Financial Times 20 said that the then available equipment could: "...be shipped quite quickly from one site to another by helicopter or on a flat-bed truck, but not used while on the move."
An article in *Time* indicated, however, that *Conqueror* was very much in touch and that the *Belgrano* sinking decision was made by the war cabinet.²³

"To the skipper of the British sub, Commander Richard Wraith, the *Belgrano*'s movements seemed to indicate that the cruiser intended to close with the British fleet..."

"Wraith flashed the information of the *Belgrano*'s course change to Fleet Commander Woodward, who passed it on to London. Admiral Sir Terence Lewin, chief of the British defense staff, took the news at once to the five-member emergency War Cabinet of Prime Minister Thatcher, which was meeting at 10 Downing Street. Lewin's recommendation was that the *Conqueror* act to defend the British task force. The War Cabinet agreed, and the order to fire was sent back to Commander Wraith."

Hastings and Jenkins say:²⁴

"...Sir Terence Lewin went to the war cabinet meeting at Chequers on the morning of Sunday, 2 May, to request permission under the rules of engagement to sink the General *Belgrano* some 40 miles south-west of the TEZ.

"The cabinet discussion wound back over many previous debates about the rules of engagement...What was the extent of the threat to the task force? Was it feasible to follow the cruiser into the total exclusion zone? Might conventional rather than wireguided Tigerfish torpedoes be used to cripple rather than to sink her? Should the escorts be left unattacked so they could pick up survivors?* It was acknowledged that, of the two big Argentine ships, the aircraft carrier would have made a preferable victim. But Lewin left ministers in no doubt of Northwood's collective view that the *Belgrano* should be put out of action at once. No minister demurred. The order was issued before lunch."

The attack was carried out at 3 p.m., but there was said to be a long delay before the submarine could communicate its success to London. Hastings and Jenkins say:²⁵

"...Not until 1 p.m. London time the following day — after the news had been rumored in Buenos Aires and printed in British papers — was *Conqueror* able to signal to London officially confirming that she had sunk the *Belgrano.*"

*The escorts were unharmed but left the area without aiding survivors.*
Colonel Alford remarks: 26

"Interestingly, the nuclear-powered submarines did stay under operational control of the Commander-in-Chief Fleet..."

Referring to the attacking submarine as the Challenger, he says: 27

"...the Challenger does appear to have had quite direct and specific authorization from London (even, it is said, from the Prime Minister herself) to attack the Belgrano within the rules of engagement."

"I do not know how the submarine commander communicated his request for guidance. I have to assume that the SSN had access to a satellite channel to Northwood..."

One of the key decisions made at Northwood was the choosing of the Port San Carlos landing site. It is said to have been selected because the fingers of land protected it from Argentine air attack and because the circuitous inlet offered a haven from the Exocet, since this missile lacks the ability to dodge around hills. 28 The hills did afford protection from the Exocet, but their very protection deprived the British of radar coverage and made the ships prey to Argentine aircraft.

Hastings and Jenkins describe the scene aboard ship, where: 29

"... In the operations rooms below decks, men hunched over radar screens controlling millions of pounds' worth of weapons technology, but radar detection was almost totally useless close inshore, surrounded by hills, against an enemy who became visible only seconds before attacking and was gone seconds later..."

The general timing of the retaking of the Islands was always reserved to Mrs. Thatcher and her war cabinet. Newsweek reported that: 30

"On Thursday night (May 20)...the men aboard the Invincible... gathered around the radio to listen to the BBC. The Overseas Service was broadcasting a discussion of whether Britain might still reach a diplomatic solution with Argentina. Suddenly the ship's intercom interrupted the broadcast. 'As you know,' announced a ship's officer, 'there has been a Cabinet meeting this morning and we have
just had a signal saying that it has been decided the landing will occur tomorrow morning."

Regarding British intelligence during the campaign, Hastings and Jenkins say: 31

"...few British campaigns in this century have been fought with a lower level of military data about the enemy. No satellite photographs and no good air-reconnaissance photographs were available. Signals intelligence made a valuable contribution, but the British fought the war knowing astonishingly little about the organization, abilities and personalities of the Argentine army..."

When Thompson's brigade intelligence officer, Captain Vivian Rowe, tried to evaluate the strength of the enemy as the task force was getting under way, his principal source of information was said to have been the Plymouth City Library: 32

"...which yielded standard reference works such as the Institute of Strategic Studies' annual Military Balance."

And Hastings and Jenkins say: 33

"Most of the data on Argentine capabilities and likely tactics came from their principal trainers and arms suppliers, the French and Americans. In the first days of the operation, the Chief of Defense Staff submitted personal requests for help and information to his counterparts in both Paris and Washington, and was rewarded with thick books of information from each. Yet, overall, the intelligence picture was still sadly inadequate. There was no substitute for the absence of old fashioned agents on the ground in Argentina. One of the British directors of the war described the command's yearning 'for some chaps whom one could simply give a bundle of pesos to, and tell them to jump over the wall of the naval dockyard and tell us what was going on behind it.'"

But, say Hastings and Jenkins: 34

"...As far as it is possible to discover, Britain was able to mount no useful secret intelligence service effort within Argentina..."

They did report the gathering of some intelligence, and some warning of Argentine aircraft takeoff from the mainland, by British submarines lying off the Argentine coast. 35
Alford says: 36

"There is a very strong suspicion that Special Air Service and Special Boat Service teams were placed in Argentina to watch aircraft movements and that they used very high speed integrated circuits to transmit messages in bursts to the task force at the rate of some hundred words per second, thus substantially reducing the danger of intercept."

Alford also says that Special Boat Services, probably landed by the first nuclear submarines to arrive, were on the Falklands themselves by about a month after the Argentine invasion. They were there, he said: 37

"...to observe deployment patterns and pass this information by radio to London and the fleet."

The activities of the Special Boat Services -- members of a small secret unit of special commandos hand-picked from the Royal marines -- are described by Newsweek on their departure for the recapture of South Georgia: 38

"The camouflaged C-130 transport plane was only a few hundred feet above the heaving waters of the South Atlantic when the rear doors suddenly opened. Fourteen men in black wet suits and goggles dropped silently into the sea on black parachutes. Beneath the surface, a nuclear-powered sub picked up the blips from their sonar transmitters, and let out a cable on a buoy..."

When they had been taken aboard, the submarine:

"...turned south, edging its way under the massive 'sonar shadow' of an iceberg ... that blocked detection by enemy listening devices."

The "Cockleshell Heroes" then swam ashore, mapped Argentine positions, and made decisions on where British helicopters should approach.

"... All the information was recorded in ten minutes on tape, then 'burped' out by a radio that compressed it into a single second of sound, unintelligible to the Argentines..."

These groups are said to have had portable satellite ground stations, which were reported by several people to have been in use.
Alford says that some information:

"...may have come from the islanders who managed to remain in radio contact with the force..."

He also recalls the famous telephone call by the brigadier commander at Swan Inlet, who rang up a Bluff Cover islander to ask whether the Argentines were still there. (They weren't, and the British went in.)

Alford also says that the task force:

"...pressed the local CB radio into service to communicate directly with the Argentinians in Port Stanley."

About intelligence from the air, Alford says:

"After the invasion, the means of gathering strategic intelligence were extremely meager. American reconnaissance satellites certainly helped but they were badly limited by cloud cover. The distance from Ascension Island to the area of operations made aerial reconnaissance very difficult, and the absence of a capable long-range general-purpose reconnaissance aircraft was badly felt. Once the maritime reconnaissance Nimrods were operating with inflight refueling, they flew some 150 sorties to keep watch on the Argentinian navy.

"In the case of South Georgia, we had to resort to a Victor tanker rapidly fitted with cameras to find out what forces were on the island. Although foiled by clouds, the aircraft's ordinary operating radar did at least ascertain that no large Argentinian ships were present in the anchorage.

..."...we were very short of tactical photo reconnaissance; there were too few harriers to do the job and they had higher priority tasks.

"It came as a shock to find that the Argentinians had flown C-130 sorties into Stanley Field and continued flying until the very last days. I doubt if the Task Force was getting adequate medium- and high-level photo coverage on a regular basis."

Hastings and Jenkins said that the information on the Falklands:

"...was obtained largely by men's courage and persistence, on foot in the mountains."
Regarding communications, the British were apparently extremely lucky that the Argentines lacked electronic warfare capabilities. In a February 1983 report of a briefing of NATO experts by the British concerning the Falklands campaign, Reuters says: 43

"NATO is ... tightening up its command, control and communications network in the knowledge that an adversary will have among its first priorities the disruption of these links.

"London experienced no problem in communicating with the task force during the Falklands war because Argentina had hardly any electronic warfare capabilities, military experts said."

Alford summed up the command, control and communications situation in the Falklands as follows: 44

... The war cabinet was at all times in control of the degree and appropriateness of the violence used. It also controlled the exclusion zone.

... The Rules of Engagement were good ones and worked well.

... There was a shortage of strategic satellite links, especially secure links, but this did not cause significant trouble.

... Strategic intelligence was very meager. The U.S. satellite "helped" but was severely limited by cloud cover.

... The command channels to London worked well, including the fact that the political "fussing" was minimal.

... There was a lack of observational capabilities. There was a marked lack of airborne observation patrols.

... In the tactical area, there were adequate channels and adequate frequencies, but a shortage of secure channels.

... There was a failure of tactical intelligence because of the absence of means to acquire such intelligence.

... Battlefield communications were excellent.
Chapter 5. Argentine Command and Control

Extremely little is known about the Argentine side of the conflict, but it is clear that their command and control was poor. Interservice rivalry and lack of cooperation were said to be at the base of this, and this ran throughout the entire military Junta. This was a political problem which caused the services to be either unable or unwilling to coordinate operations, says Norman Friedman.¹

Friedman cites various Argentine assets. The Navy, he says, was considered one of the best in Latin America. It had primarily an anti-ship orientation, and had invested heavily in antiship Exocets. Because of its long-standing disagreement with Chile over the Islands in the Beagle Channel, Argentina's pilots had been trained specifically to attack ships. It had taken delivery of five of the 14 Super Etendards which could carry the air-launched Exocet and some missiles with which to arm the planes. In addition, its aircraft carrier, the Veinticinco de Mayo had been refitted to carry the Super Etendard.

All the ground forces, says Friedman, were well equipped:²

"The Argentine ground forces, both marines and army, appear to have been well equipped in a material sense, with large numbers of anti-aircraft weapons, light tanks (apparently Austrian Curassiers) and even night-vision equipment. ... By the time of the British assault, about 10,000 Argentine troops were in place, and their equipment was at least the equal of the British; for example, their light tank was more powerfully armed than was the British Scorpion, and they had had the advantage of time to dig in."

He adds that the marines were described as "excellent troops," although the army's reputation was not very good. The army, he said, consisted mainly of untrained draftees, who lacked combat experience other than that of 1970's counterinsurgency operations.
Friedman says:  

"The Argentines were able to detect British naval movements and to direct air attacks, reportedly because of the presence of two mobile (TPS-43 and -44 air-defense radars). Neither was put out of action, although the British tried hard to do so, using U.S.-supplied Shrike (AGM-45) Antiradar missiles (ARMs). . . ."

The Argentines were able to use the air launched Exocet with deadly effectiveness, and even a truck-mounted surface-to-surface Exocet was used to disable the British Glamorgan. But, says Friedman, they were unable to coordinate even the air and ground strikes at San Carlos, when the British were most vulnerable.

Hastings and Jenkins also tell of the lack of interservice coordination:

"...The Falklands lay within the navy's sphere of responsibility, under the control of Admiral Juan Jose Lombardo at Puerto Belgrano on the mainland. Yet the mainland army and air-force command centers were located further south at Comodoro Rivadavia, and the hapless Major General Menendez in Port Stanley was dependent on a ramshackle chain of liaison officers for communications between services...."

...  

"Rear Admiral Juan Jose Lombardo, based in Puerto Belgrano, was intended to exercise the same sort of overall direction of Argentine land, sea and air operations around the Falklands as Sir John Fieldhouse was providing for the British. But, as the war situation worsened, inter-service cooperation deteriorated. The army and air force became increasingly reluctant to accept direction of the war effort from a naval officer, when the navy's ships lay impotent in their ports."

Norman Friedman says:

"The Argentine commander on the Falklands, General Benjamin Menendez, was an intelligence officer, not a combat commander; he had gained prominence as a result of his success against guerilla forces in the 1970's. As has been the case in many unstable countries, his selection may have been based more on his known loyalty to the ruling junta than on any demonstrated capability..."
Other instances cited by Hastings and Jenkins of lack of Argentine coordination were:

"The responsible air force commander, Brigadier Ernesto Crespo, was not officially informed by the navy or army of the British landing at San Carlos on 21 May until 10 a.m., two hours after they themselves became aware of it. He dispatched his early sorties that day on his own initiative, based upon sketchy reports of some form of British operation taking place in the bay. ..."

"...The navy failed to provide the air force with the radar direction that its pilots had expected. The air force failed to profit from the technique developed by navy pilots of lobbing their bombs to provide them with enough 'air-time' to fuse. The air-force decision to bring returning pilots to widely dispersed based to camouflage the scale of losses precluded effective debriefing and exchange of information and tactics."

"The navy appears to have mounted its Super Etendard and other air strikes against the British fleet without consulting or informing the air force of its operations."

And Friedman adds that because of the weakness of the command structure, the Argentines were even unable to effectively terminate the war.
Chapter 6. Argentina and the News

"From the outset of the South Atlantic skirmishing, the Argentine military leaders have tried to impose order on Argentina's authentically pluralistic network of newspapers, news agencies, and radio and television stations..."

This was in line with the general policies of this military Junta.

Argentine broadcasting is conducted by a hybrid system in which state-run and privately-owned stations (all carrying advertising) exist side by side. This system has existed since 1957 and was reaffirmed in a new law (number 22.285) which was ratified in September 1980.

Argentine broadcasting has undergone varying degrees of state control, the most repressive being during the presidencies of the late General Juan Peron.\(^2\)

Prior to Peron's brief last presidency in 1973-74, some independence had been gained by television. But in 1974, Peron:\(^3\)

"...expropriated\(d\) the three independent commercial television channels in Buenos Aires and two similar channels in the provinces. By this measure, the government gained control of the supply of programmes and the news to all TV stations, both privately-owned and state-run, throughout the country. This situation still exists."

Radio stations in Argentina were privately owned until 1937, when the Argentine government set up the first state-run radio station. Official broadcasting developed along with private radio stations after that time. During Peron's first presidency (1946-52), the government expropriated the country's 50 private radio stations and put them under the control of a centralized authority.\(^4\)

"...From that moment, Argentina's radio stations were transformed into instruments of propaganda at the service of the government, a situation which, unfortunately, has existed to a considerable extent to the present day..."

---

*Although 14 of the 50 stations are now privately owned.*
Under the 1980 law, which does favor denationalization, but:\(^5\)

"...allow(s) for a disproportionate degree of state intervention in some aspects of station operation..."

the Argentine government keeps one television channel in Buenos Aires for itself. This channel is run on a commercial basis, as are its repeater stations in the principal cities in the provinces. The Argentine government also has a radio station in Buenos Aires and in each of the major interior cities. These form "an official non-commercial network."

Although private broadcasting exists in Argentina, a general statement included in the 1980 law lays down the following restrictions:\(^6\)

"The broadcasting services should foster the cultural enrichment and raise the moral standards of the public, in keeping with the formative and informative character assigned to these transmissions, aimed at elevating the dignity of mankind, strengthening the respect for the institutions and laws of the republic, affirming the inherent values of family integrity, reserving the historical traditions of the Fatherland and instilling the precepts of Christian morality...(Broadcasts) should avoid everything which tends to degrade the human condition, affect social solidarity, belittle the sentiments of Argentine patriotism or damage aesthetic values."

The Intermedia article from which this material is taken remarks that:\(^7\)

"The scope of these concepts is so ample that it is practically left to the judgement of the controlling authority in each case to decide whether a programme has violated the law or not."

From April 7th, 1982 onward, no unofficial newsmen, not even Argentine reporters, were allowed on the Falkland Islands. Only Telam, the official Argentine news agency, and the state-controlled ATC television Channel 7 were permitted to have representatives there.
Then, at the beginning of May, even Telam was ordered out and the Channel 7 correspondent, Nicholas Kassensew:

"...constitute(d) the fourth estate's foothold on the islands..."

In the early days of the conflict, about 100 reporters, both Argentinian and foreign, gathered at Comodoro Rivadavia in southern Argentina, which was one exit point for planes headed for the Falklands. But when a British re-taking of the Falklands became imminent, they were evacuated to Buenos Aires and the foreign correspondents were never permitted in the south again.

After then Secretary of State Haig announced the end of U.S. neutrality at the end of April, the Argentine Junta issued restrictions to both local and foreign journalists which they were to obey "or risk the consequences." Among these restrictions were:

"'News agencies and/or correspondents accredited in the country...will be responsible for the control of all information that originates in the country or coming from abroad which is transmitted or re-transmitted either abroad or to national correspondents.'"

Under the category of national security, the guidelines prohibited:

"...information that produces panic, is against national unity, detracts from the credibility of, or contradicts, official information, upsets internal order, generates aggressive attitudes towards the country's British community, affects the relationship with other countries, or, coming from abroad, tends to facilitate the achievement of the opponent's psychological goals."

From the beginning of the Falklands conflict, massive amounts of disinformation were dispersed by the Argentinians. This was usually not released by Argentine officials, but reported by Telam or the state-owned Argentine Color Television, and then attributed and re-attributed to "high sources." Some of the stories circulated concerned the capture of a British Harrier pilot; the running aground of
the British liner *Canberra*; the damaging of the British aircraft carrier
*Hermes* at least three times; and the sinking of the *HMS Invincible*
several times over. When the *Hermes* was reported to be on fire and
listing at 52 degrees after an Argentine air attack, British Press
Association reporter Peter Archer reported to London:  

"I am on board *Hermes*. It is not on fire and it is clearly
not listing."

Christopher Thomas of *The Times*, reporting that "they sank the
*Invincible* again yesterday," gave a long list of Argentine fantasies:  

"Telam...reported gravely that 35,000 tons of scrap metal
that used to be British ships were now at the bottom of the
ocean plus another 87,000 tons of war equipment turned into
scrap by Argentine planes.

"...official sources point out that 600 Britons have died
and that half of the fleet is out of action. The *Canberra*
is, sadly, listing at 52 degrees, after running aground in
Saint Carlos Bay..."

"It has been some time since we learned that Rear Admiral
Sandy Woodward's widow had been told personally by Mrs.
Margaret Thatcher that he had understandably committed
suicide because of the humiliating defeat at the hands of
the Argentines. Nothing, alas, has been heard of Prince
Andrew since he was wounded and captured."

The effect of these fairy tales was to make both Argentine citizens
and outsiders sceptical of Argentine news. More reliance was apt to be
put on the reticent, scarce, but generally accurate British reports.

One Argentine man listening to a radio inside a news kiosk in late May
is reported to have said:  

"'It seems we have damaged two frigates, because even the
English say so...'"

But the Argentine public, while not believing the Junta, did not
believe the British authorities either. Both sides were lying, they
said. Norman Friedman has said that the Junta also sought to deceive
itself, at least partly through its propaganda organs. To bolster
public morale, the Junta had a series of ads produced and run in all the newspapers. These were accompanied by catchy music on all four television channels. They apparently did help morale, but they also gave some clues to outside reporters, who claimed that they often gave more information than did the official communiques.\textsuperscript{16} Naval Captain Enrique De Leon ran the military command's press room at the Sheraton in Buenos Aires. Communiques were issued frequently but contained little information.\textsuperscript{17}

Independent Television News of Great Britain described Argentine news sources as follows:\textsuperscript{18}

"The experience of ITN correspondents in Argentina was that, though news was totally controlled by the military at the source, there was no censorship at the point of transmission.

"The sources of news were: --

1. Communiques from the joint chiefs of staff.
2. Public pronouncements by individual members of the junta and ministers.
3. Television reports by Argentine journalists on the islands as carried by the Army-run Channel 13.
4. The wire services of the two official and the two "semi-official" news agencies.

"Although BBC and ITN were denied access to satellite facilities from Buenos Aires, except by subterfuge, paradoxically the two British organizations were given equal treatment with other foreign broadcasters on the gathering of news."

On the whole, British correspondents in Argentina, who numbered about 35, were treated politely by the Argentines and given the same privileges enjoyed by the other international correspondents.\textsuperscript{19}

Although four foreign correspondents were expelled from Argentina during the war, (one from Newsweek, one from \textit{Le Figaro}, and two Norwegians,) no British correspondent met this fate. However, on April 13th, three British journalists, Simon Winchester of \textit{The Sunday Times}, and Ian
Mather and Tony Prime, a writer-photographer team from the Observer, were arrested at Rio Grande in Tierra del Fuego province in the extreme south of Argentina and held on charges of spying. They had been found taking notes and using binoculars near an airport. Despite major efforts to have them freed, including a protest by the American Society of Newspaper Editors, they languished in their communal cell at the Ushuaia police headquarters for the duration of the war. Here, they watched the planes fly over, and were kept up with war news by their captors. They probably had more information than any other British reporters, but were in no danger of ever being able to use it.

On April 17th, two Canadians and an American working for Canadian Broadcasting Corporation Television, along with an Argentine interpreter were arrested for filming near an air base in southern Argentina. Producer Tony Hillman (who was American-born), soundman John Axelsson, cameraman David Wilson and the interpreter were all charged with endangering "the security of the state." They, as well as a Columbian writer, were later released, however.

After the U.S. joined the British side in the conflict, harassment of foreign correspondents increased. Several U.S. and Canadian journalists complained of being followed, receiving telephoned threats, and having strange people posted outside their homes. Some reporters were also terrorized. First, an American reporter from WNEW-TV, New York, Christopher Jones, and then three Thames TV journalists, Julian Manyon, Edward Adcock and Trefor Hunter, were forced into cars, driven around for hours, and abandoned naked in isolated areas. The latter three were consoled by an exclusive interview with President Galtieri.
Time correspondent William McWhirter told of his three-stage forced evacuation from Ushuaia in which he was searched several times, his "shampoo found suspicious", told he "ought to be shot," and flown all alone in an unheated stripped down Boeing 707 troop transport.27

On June 5, shortly before Great Britain retook Stanley, Argentina closed two of its own press organs. The news agency, Noticias Argentinas and the newspaper El Patagonico were shut down for 72 hours, and were told only that they had "failed to comply with the guidelines."28

But on the whole, the Junta, with its strong reputation for making reporters "disappear" could be said to have avoided excesses in most of its dealings with the news media during the Falklands conflict.
Chapter 7. Great Britain and the News

Behind a major "war" which broke out between the British media and the government over the handling of the press and public information during the Falklands conflict lay two basic facts:

1. The fear was rampant in the Thatcher government that the war would be lost on the television screen, as the British thought the Vietnam war had been lost.

2. Unlike the military, which functioned smoothly by rapidly converting contingency plans designed for the North Atlantic, the embarrassed media were basically left without a game plan.

Accusations flew on both sides, with the government saying that the media were not sufficiently patriotic, revealed too much, and were "darned ungenerous" about their treatment during the campaign, and the media countering that the government distributed disinformation, "managed" the news, practiced censorship in an erratic and not very intelligent fashion, and had the capability but lacked the will to get still and especially TV pictures from the battlefield back to Great Britain.

The bitterness which led to a six month investigation by the House of Commons Defense Committee¹ can be seen in the following quotes:

"The Vietnam analogy was a spectre constantly stalking the Falkland decision-makers and was invoked privately by the military as an object lesson in how not to deal with the media. Wide-open coverage of Vietnam on television had the effect of turning public opinion against the war, so the argument ran."

ITN Memo to the House of Commons Defense Committee²

"No photographs or television footage have been transmitted from the fleet for almost a week. Military sources said that shipboard equipment designed to relay the pictures via satellite had failed, but journalists here believe that the Government is prevaricating."

The New York Times³
"...Even in these days of modern technology the transmission speed for our pictures was something like 25 knots!"

The Sunday People

"...'My noble friends and I neither expect nor wish that, on this kind of subject at this kind of time, government statements should be in the least bit informative...Indeed I think we would forgive ministers if, in the interest of the forces, some of their statements were positively disinformative at some time.'"

Lord Mayhew of the House of Lords

"...'the case for our country is not being put with sufficient vigor on certain of the programs of the BBC.'"

Prime Minister
Margaret Thatcher

"The BBC needs no lesson in patriotism from the present British Conservative Government."

Alan H. Protheroe
Assistant Director General
BBC

"The widow of Portsmouth is no different from the widow in Buenos Aires."

Richard Francis, Managing Director, BBC Radio

Lack of a contingency plan meant that little provision for the media was available when the task force was hastily assembled. After "an enormous fuss" first six, then twelve, and eventually 29 British correspondents, photographers, cameramen and engineers were included among those who sailed to the South Atlantic. But no plan had been made for their selection, and many elements went unrepresented. Most of the reporters lacked combat experience, some were not up to the rigorous conditions, and not a single foreign correspondent was included on the task force to lend objectivity to the reporting. Even Reuters, Great Britain's international news agency, had to put pressure on the Under Secretary of State to finally get a place for one correspondent on the late sailing Canberra.
Along with the reporters, the Ministry of Defense sent six Public Affairs Officers, or "minders" to the South Atlantic, who were responsible for censorship and for keeping the reporters from covering restricted areas. Because of the closed nature of transmission facilities, they were able to exert total control. Most of the minders were of junior level or had little knowledge of the military or experience in combat. As for the Royal Navy, it had seen no action since Suez, 25 years before, and most members of the Navy and Air Force had no experience with or training for working with the press. Within the Ministry of Defense, an administrative civil servant had acted as head of Public Relations since end 1981. A professional took over the job only in the last days of the war. To underscore the unpreparedness of the British media for modern war coverage, their instruction manuals dated to World War II, with some updates in 1958, just after the Suez crisis.

In the earliest days of the conflict, an incident occurred which marred relationships between the government and the media. The government allowed information to leak which indicated that the nuclear submarine **HMS Superb** was spearheading the naval force to the South Atlantic. Everybody wrote a story, especially after the announcement of a British blockade 200 miles around the Falklands islands. The **Sunday Times** of London ran a huge article discussing every piece of electronic gear on the submarine in detail and every particular of how this equipment would probably be used to enforce the blockade. On April 9th, The **New York Times** wrote:

"The spearhead of the British blockade of the Falkland Islands, which is to begin on Monday, will be formed by four of the royal Navy's nuclear-powered submarines, military sources confirmed today."
"One of the four, the Superb, was dispatched from Gibraltar early last week, according to the sources, and has already arrived off the South Atlantic archipelago."

Various superlatives about the Superb circulated for 22 days, before the submarine turned up at its base in Scotland. A stunned Sunday Times wrote on April 25th:

"One of the realities of the build-up to war, as the media (including this newspaper) has found to its cost, is that, as always, truth is liable to be the first casualty."

In testimony before the House of Commons Defense Committee investigating these charges, Permanent Under Secretary of State Sir Frank Cooper, the War Cabinet member charged with media relations, admitted that:

"...There were certainly occasions when we did not tell the whole truth and we did not correct things that were being mistaken or misread. I suppose the earliest and the classic case was HMS Superb which sailed from Gibraltar a few days beforehand and it was then assumed that it had gone to the Falkland Islands. We certainly did nothing to correct that at all.....This was then compounded by its arrival back in Scotland and nobody noticed it for several days but we did not say anything about that either..."

Aboard the task force, the several layers of censorship — which eventually extended to yet other layers in England — were deeply resented by the correspondents.* The prevention of access to news both with the fleet and in England was not appreciated either. Reporters were unamused when one Ministry of Defense representative joked that the Ministry’s motto was "Thou Shalt Not Know." In London, announcements and news were held for varying periods of time. The government said they took time to clear, but the press felt the news was being politically managed.

*Independent Television News described up to six layers of censorship: two on the task force, the local military authority and the Ministry of Defense press officer; and four in England: the Director of Public Relations, the Chief Public Relations Officer, the Clearing Committee and the Secretary of State.
The major problem of the media was the inability to get any television footage and too few still pictures directly back to London from the Task Force.

From the time of the re-taking of South Georgia, three weeks went by during which no pictures at all could be made available. The government attributed this to lack of technical facilities, but the media attributed it to lack of will. This suspicion was at least partly confirmed when:

"...just as the marines landed at San Carlos Bay, the task force suddenly gained the ability to send photographs. The first picture to be printed in London within hours -- rather than weeks -- after it was taken in the Falklands was one showing three British marines raising the Union Jack..."

"Asked how it had gotten to London so rapidly...a ministry spokesman said, 'Well, we knew there would be a lot of interest in this particular shot, so we gave it priority'..."

The technical means available to the media for communications from the task force were described by the Ministry of Defense as follows:

"a. Written despatches and "service messages" were transmitted over the ships' military communications system..."

"b. Voice reports were transmitted from ships fitted with the commercial maritime satellite (Inmarsat) facility directly to the broadcasting organizations. As no warships are fitted with Inmarsat facilities, cross-decking (moving from ship to ship) had to be arranged to enable journalists to transmit their reports.

"c. Video pictures. Initially, it was possible for film to be transmitted directly from the Electronic News Gathering camera but as the Task Force moved further south this was no longer viable. Unfortunately, it also proved technically impossible to transmit moving pictures with the equipment available with the Task Force...Video film had, therefore, to be sent by the quickest available means to Ascension Island. From there it was fed by satellite to BBC or ITN using the specially adapted Cable and Wireless facility or brought by air to the UK.

"d. Still Pictures of the recapture of South Georgia were sent by sea to Ascension and were then flown to the UK."
Otherwise, pictures were transmitted from the Task Force by means of 4 Muirhead picture transmission machines available on Canberra which worked in conjunction with the Inmarsat facility. These picture transmission machines were subsequently transferred to other ships fitted with the Inmarsat facility..."

On May 21st, 1982, the Ministry of Defense provided editors with an explanation of the difficulties which prevented television transmission. This was described in terms of lack of bandwidth, etc. For the text of this explanation, see Appendix 2.

In testimony before the House of Commons Defense Committee, Mr. Alan Protheroe, Assistant Director General of BBC, talked about the difficulties in technically transmitting television pictures and explained an alternative communications pathway to which the media sought access but which the Ministry of Defense never permitted them to try:

"...We tried to discover if a satellite ground station could be placed aboard the ships, but there were problems of frequency, problems of band width, problems of Gyro stabilisation to counter the weather in the South Atlantic because the path from the ground station to the satellite is very critical. There were also power supply problems. ... The BBC and IBA ground stations were not really suitable although we had plans to modify those if it had been possible to use them aboard ship. We then experimented at the signals and radar establishment at Defford with military equipment to discover whether pictures could be transmitted. We discovered that by using existing military equipment with relatively slight modifications — and ITN did indeed provide the equipment for that modification — it was possible for ENG (Electronic News Gathering camera) pictures using existing military equipment, which is very transportable (it is actually an Army tactical ground station) for that to be able to fire ENG pictures to a satellite. The problem was that the only satellite that was available was the American Discus satellite and to have used the Discus satellite would have meant asking the Americans to have tilted that satellite very slightly so that its reflection would have covered the area which we required. The three American television networks made an approach to the Pentagon to discover what the possibilities were of that satellite being tilted. They were not rejected, if I can put it that way. The request, the suggestion, was not
rejected out of hand. The Pentagon I understand made it clear that they would require a formal approach from the Ministry of Defence or the British Government. I have no knowledge that such a request was made."

On multiple follow-ups, the media were told by the Ministry that the possibility "would be looked into," but nothing was ever done.

ITN testified\textsuperscript{22} before the House of Commons Defence Committee that it was convinced that satellite pictures could have been transmitted from Hermes and other ships equipped with SCOT terminals, but that there was an absence of will by the Ministry of Defence to try. For the text of ITN's description of unused technical possibilities, see Appendix 3.

Mr. Robert McGowan of the Daily Express testified that:\textsuperscript{23}

"None of the accredited correspondents with the Task Force will ever accept that, in a country of high technology like Great Britain, a secure and rapid means of transmitting all copy and pictures from the Falkland Islands to the Ministry of Defence in London is, and was not, available. Indeed, I know of one sensitive British unit which carried such means on their backs. They were able, by satellite, to contact their headquarters in Britain directly and at will."

Sir Frank Cooper made clear his position on television in testimony before the House of Commons Defence Committee:\textsuperscript{24}

"...one of the problems...is that if we had had transmission of television throughout, the problems of what could or could not be released would have been very severe indeed. We have been criticized...and we will no doubt go on being criticized...but the criticism we have had is a small drop in the ocean compared to the problems we would have had in dealing with the television coverage.

"You have to appreciate how far away we were. Time, distance and weather were not on the British side. We were in a high risk military situation and we were right at the end of that and we were not going to take chances beyond those we had got to take..."

Although the media also complained about non-pictorial facilities, the Ministry of Defence defended its record of getting back signal and voice dispatches:\textsuperscript{25}
"...during the course of the operation over 600 dispatches and 50 hours of broadcasting tapes were sent back by the embarked correspondents. Written copy alone amounted to over half a million words. We estimate that the 5 correspondents on HMS Invincible alone provided between 25% and 30% of the daily work load for the ship’s communications centre. At one stage, it had a backlog of over 1,000 signals awaiting transmission but the Invincible correspondents were still able to transmit over 4,000 words of copy a day."

In England, the BBC came under fire from the Prime Minister for being too even handed in its handling of the news. BBC was accused of referring to: 26

"...the Task Force rather than 'our' Task Force. It treated both MOD and Argentinian statements about casualties as 'claims.'"

BBC was also accused of risking British security by showing a film on how the Harrier worked. The film was a sales promotion piece, used to attempt to sell Harriers the world over -- including to the Argentines. 27

But BBC had an international reputation to uphold and insisted upon upholding it. While it places only sixth among the more than eighty countries who currently direct external broadcasts towards the world’s 11.4 billion radios*, it has the most credibility of any of these services. Its reputation, made during World War II, “when it reported the Dunkirk, as well as the D-Days,” has held ever since. The Argentines depended heavily on the BBC World Service to keep up with what was going on during the Falklands war.**

---

*The first five are the USSR, broadcasting 2,148 program hours a week in 84 languages; the USA, 1,988 in 48 languages; the combined Eastern European countries, 1,653 in 27; China, 1,304 hours in 46 languages, and West Germany, 786 hours in 39 languages. BBC broadcasts 725 program hours weekly in 37 languages. It has 75 million listeners to its overseas programs, which are supported by government grant. The domestic BBC gets its support from private sources. The BBC domestic service was 60 years old in 1982 and its World Service celebrated its 50th birthday the same year.

**From the first of May until the conflict ended, the Argentines attempted to jam three of the six frequencies used by BBC to broadcast to Latin America. It lacked the practice to be very effective, however.
Because of the lack of information available from British correspondents, tremendous reliance came to be placed by England and the world on news available out of Argentina. Richard Francis, Managing Director for BBC Radio, said on May 11th:

"...about 90% of the facts about the Falkland islands seem...to be coming from Argentina."

One result of this was that Argentine claims, however unwarranted, began to receive greater credibility. There were several occasions on which the Argentines released accurate information and released it first. The lack of news from Great Britain left many countries, including Japan and third world countries, wondering whether Great Britain was not indeed losing the war.

Lawrence Freedman has said:

"...Since the American experience with Vietnam, there has been an assumption that democratic societies have a low level of tolerance of war, with national will being sapped with each casualty and lurid media coverage."

But since the age of television, the world has come to expect on the spot TV coverage of such wars. This is especially expected of democracies like Great Britain. John Pilger of The New York Times complained of the vast propaganda campaign to which the U.S. had been subjected by Mrs. Thatcher and described her attacks on the patriotism of the British media as "more reminiscent of Joe McCarthy than Rudyard Kipling." The Falklands war was an ideal one, he said, in that it was:

"...on the other side of the world, and the flow of nasty news from the battlefield is strictly controlled by the Government. So people at home can chat about it, even celebrate it, without a single image of death and pain and dismemberment and atrocity getting in the way of the schoolboy fun."
Both the British media and the government cited U.S. news sources in favor of their position in testimony before the House of Commons. The Committee reported that:

"...we were greatly impressed by the unanimous view of five journalists representing different elements of the U.S. press and broadcasting media whom we met in Washington that the British Government had maintained its credibility throughout the conflict and was generally regarded as being as helpful as could have been expected..."

But ITN quoted a "distinguished vice-president of an American network news organization" as saying:

"Basically, I think it is any nation's right to run its war any way it likes. What it ought not to expect is that others will believe its protestations when it does so in a foolish way."

Jim Becker of the Voice of America sent a letter to the Clerk of the House of Commons Committee, saying that he had been invited by the Association of American Newspaper correspondents "to respond to the Committee's request for an assessment of the handling of press information during the Falklands crisis." One wonders if the Association would have agreed with the letter's contents, part of which were as follows:

"...I am only too well aware of what an idiotic, undignified and sordid mess can be created if the press is allowed to turn a war into a media madhouse. Vietnam is, of course, the classic example. That the Department of Defence avoiding falling into that morass alone is justification for its handling of press information during the Falklands fighting."

Despite all government precautions, there were information leaks, quite often in London. Hastings and Jenkins give some accounts:

"On 5 May, two Harriers...suddenly disappeared from the radar screen, and were assumed to have collided and crashed into the sea. 15 percent of the battle group's air cover had now been lost, and it was a matter of exasperation to the naval staff that the fact was announced to the world by
the correspondents with the fleet, with the sanction of the Ministry of Defence...."

In another instance:

"The breakout from the beach-head north towards Teal Inlet and Port Stanley and south towards Goose Green was debated at war cabinet on the Wednesday morning and lobby correspondents were told to expect news shortly of advances by British land force." This they dutifully reported. The trouble, as Sir Frank Cooper later reflected, was that there were only two places where such a breakout might occur. Since Goose Green seemed the most likely, the news was as good as out. The following morning, 27 May, the BBC radio correspondent Christopher Lee had it confirmed by a senior member of the operations staff, who told him the attack was already in progress and he could not see why it should be secret...It was duly broadcast on the 1 p.m. news and was picked up round the world...

"At the time 2 Para were still trekking towards their night-time bivouac at Camilla Creek. Ministry of Defence officials, desperate lest the news alert the Argentinians to rush reinforcements south, now had the difficult task of putting the cat back in the bag. It proved impossible. By evening, all media were assuming that Goose Green was the destination and this was broadcast that night on the BBC Overseas Service, to be received on the Falklands...."

Norman Friedman gives this account: 38

"The British government showed what appears to have been an excellent appreciation of the power and value of the news media. Because the Falklands were very distant, and because only British warships could carry correspondents there, the government was able to enforce strict control of news reporting from the battle area. At first a similar degree of control was enforced in London, with correspondents permitted to attend only background briefings. As the war continued, however, it appears that unofficial "leaks" in Whitehall became more and more common, and control over stories originating in London disintegrated. In particular, it appears that the Official Secrets Act proved entirely ineffective in controlling public access to information about the weaknesses of British tactics and equipment..."

A large part of the problem seems to have been that the government chose to play games with the media rather than attempt to develop a working relationship, as was done quite successfully in World War II.
In the U.S., the information advantage was maintained to a large extent for Britain not by press reports, but on the diplomatic front. British Ambassador Sir Nicholas Henderson virtually ran a one-man public relations operation, giving more than 60 briefings and interviews, more than 30 for American radio and television shows, during the 74 day war. Henderson, who is said to have done five American broadcasts before 8 a.m. one morning, was described by one journalist as "straight from central casting." The Argentines were unable to counter his charismatic campaign. The foreign affairs aide of one democratic senator is said to have contrasted British and Argentine lobbying efforts to get the U.S. on their side as follows:

"The Brits allowed a graceful period to elapse and then they came up to the Hill and said this thing had gone too far. Henderson came into the office and made a beautiful 20 minute speech. Our mouths dropped -- people like that really do exist. The Argentines in contrast never even called our office, they just sent rather long-winded and boring communiques. They seem to have concentrated on their friends like Jesse Helms and in Washington that is a big mistake." Helms was said to be the only Argentine supporter in the Senate.

On investigation, many reforms in how the news should be handled during a crisis situation were seen to be necessary. Plans by all concerned for better organization, better education and training in handling press matters, and new technology to meet future needs were recommended. One conclusion was that:

"...information matters are an intrinsic part of war and should, therefore, form part of the planning for war."

From a policy standpoint, perhaps the restriction of television and still pictures was a success. Henry Kissinger is quoted as having said:

"...I've been reading the British press and if we could have got the support for our Vietnam policy that the Prime
Minister has for her Falklands policy, I would have been the happiest man in the world."

But poor management due to lack of prior planning coupled with the lack of will on the part of the government to aid the media, especially in picture coverage, meant that Great Britain lost a major propaganda advantage. It also meant that, unlike the arms area, where many technologies were found to operate in unexpected ways, broadcast technology was not tested to its full limits. As Independent Television News testified: 43

"It is a tragedy that television signals could not be transmitted by satellite from the Task Force. It would not only have revolutionized the nature of the coverage, but it would have represented a major achievement by Britain in television technology."

On October 24, 1983, when the U.S. invaded Grenada, it took a page from the British Falklands book. According to The Houston Post, when announcing the invasion on October 25th, President Reagan: 44

"...indicated that he had given command over the release of battlefield information to Gen. John Vessey, Chairman of the Joint Chiefs of Staff."

Vessey, says The Post: 45

"...reportedly has said that he believes there has been too much news coverage of the military. And several correspondents, including Bill Lynch of NBC, have quoted Pentagon officials as saying that in Grenada, the United States was copying the British, who maintained secrecy and close press censorship in their retaking of the Falkland Islands from Argentina."

The New York Times reported on October 29th, 1983 that three days following the Grenada invasion, only a few pooled reporters were permitted on the Island, and that these were on a "set itinerary." Accompanied by military escorts, they viewed only what was approved for their viewing. 46 No reporters at all went in with invading U.S. forces,
and for several days after the invasion, no reporters were allowed to wander at will or to stay overnight on the island.

The Times also reported in another article that ever since Vietnam, both the military and civilians in the Pentagon had begun studying ways to deal with journalists in case of limited wars, the main concern and focus being placed on television. The Times says:

"Britain's campaign against Argentina in the Falkland Islands last year stimulated American planning of news coverage in a limited war. This planning did not focus on the Grenada operation but was intended to cover such contingencies as a war in the Persian Gulf or an extension of the fighting in Lebanon.

"When the Joint Chiefs of Staff began to plan the Grenada invasion, discussions between British and American public relations officers about the Falkland campaign became more detailed. At the same time and at a higher level, public relations officers at Supreme Headquarters Allied Forces Europe at Casteau, Belgium, began to think about handling of news coverage in possible crisis situations involving the North Atlantic Treaty Organization and the Warsaw Pact."

These discussions "disclosed no great animus toward the press," The Times said, but:

"...revealed perplexity about handling the press in a situation in which complete censorship would be difficult to invoke and even more difficult to enforce."

Democratic Senator Paul Sarbanes of Maryland was reported to have said at a Senate Foreign Relations Committee meeting shortly after the Grenada invasion:

"...'The treatment by the administration of the free press raises very serious questions about our function as a free society.'"

For a description of Great Britain's propaganda Radio Atlantico Del Sur, see Appendix 4.
Chapter 3. The Role of the USSR

In a question and answer session in the White House Rose Garden between President Reagan and reporters on April 14th, 1982, the following interchange took place:¹

"Q. 'You haven't said anything about whether the U.S. is supplying any intelligence information to the British. But could you comment on reports that the Soviets are supplying intelligence information to the Argentinians?"

"The President. 'Well, that has been reported and evidently is established, and I think that it's a -- I'd like to see them butt out."

"Q. 'You're meaning you're confirming it?"

"Q. 'You'll confirm one but not the other?"

"The President. 'What?"

"Q. 'You mean it's not too sensitive to confirm the Soviet involvement?"

"The President. 'No, no. I said all I know is what I've heard and read, and if that's going on, why, I would rather --."

On this and the following day, the reporters tried to pin the President down on whether this was a confirmation. But he said that he was only reporting on what they had reported and that:²

"Well, I was just believing that you wouldn't say it, all of you ... if it wasn't true."

Aside from being a major grain purchaser from Argentina — it buys up to 80 percent of all Argentine grain — the USSR has little foothold in that right-wing country. One of the main attractions of the Argentine regime for the U.S. is its very anti-communist stance. Unlike many developing countries, Argentina is not a buyer of Soviet arms.

But with the outbreak of the crisis, rumors began to fly that the USSR had sided with the Argentines and was supplying them with intelligence on British fleet movements. A Soviet ship of the Primorye
class did shadow the British fleet as it made its way into the North Atlantic. And:

"...British naval sources reported that the Primorye is able to monitor, process and analyze message traffic between the fleet and London."

Christopher Dobson and his co-authors describe the Primorye and its activities as follows:

"...The Primorye class intelligence vessel, one of which is normally stationed between Scotland and Ireland to track the movements of British and American nuclear submarines operating out of Holy Loch, was dispatched to shadow the Canberra as she steamed to the war zone. These intelligence-gathering vessels are no longer converted fishing boats hung about with a few aerials but a proper naval class of vessel of 3,400 tons, and manned by a crew of 117, most of whom are expert technicians working on an array of radar, sonar and radio interception devices."

The HMS Invincible reported that two Soviet reconnaissance planes buzzed the flotilla as it steamed southward, "apparently taking photographs."

"...They were longrange, four-engined Tupelov TU-95s, known in the West as Bears."

a New York Times report said. Dobson also described the Russian Bear aircraft:

"... With a range of 7,000 miles, packed with electronic surveillance equipment, and flying out of the Cuban-operated military airfield near Luanda in Angola, these aircraft were able to dog the fleet's progress, not only reporting position and course but also listening in to radio traffic."

For some reason, it was quickly assumed by the press that this information was being passed to the Argentines. The fact that the Soviet's would be interested in collecting for themselves intelligence regarding a NATO nation's fleet in action seemed of less interest to most of the press.

Either better informed or more astute than either the United States or Great Britain, the Russians are said to have launched two
reconnaissance satellites over the Falklands area two days before the Argentine invasion occurred. Over the next few weeks, it is said to have launched a number of additional satellites which were identified as "radar sensing," "electronic listening," and "photographic reconnaissance" satellites. 7

The photographic satellite was said to be: 8

"...capable of taking high-resolution pictures of objects on the ground. That satellite dumps out photographic capsules when it passes over the Soviet Union."

U.S. military analysts were said to have said that, because of the Falklands' generally foul weather: 9

"...photographic surveillance has been limited at best."

They were reported to have said that the interceptions made by radar and communications means had been "much more useful." The article reported that:

"Military analysts also said, however, that the British fleet was capable of masking its radar transmissions with jammers or deceptive devices and would presumably do so as the ships began tactical maneuvers around the Falklands. They are also equipped with radar sensing devices that are sophisticated versions of 'fuzz busters'..."

On April 26th, Newsweek reported: 10

"...The Russians ... launched a 'quick look' reconnaissance satellite on the day of the invasion. Its orbit carries it over the Falklands. U.S. intelligence reports that each time the Soviet satellite has been in position to take pictures of the Falklands, the target has been obscured by darkness or bad weather. The satellite has a flight life of about two weeks, so the Soviets will have to launch another soon."

This article cautioned about the amount of misinformation that was being circulated concerning the superpowers by the two parties to the conflict in an effort to scare each other or to win public opinion to
their side. It said that superpower subs were reported where they actually were not and that spy aircraft:

"...have supposedly been spotted performing missions they in fact cannot fly."

An Aviation Week article in March 1983 described an extensive Soviet integration of its overall space activities into its strategic warfare planning. Increased surveillance of many activities in 1982 -- the Falklands in April-June, the Israeli war in Lebanon from June onward, the Iran/Iraq hostilities in November, U.S. shuttle activities, and its California desert war games -- could indicate that Soviet activities in the Falklands were part of their overall testing of the abilities of their space systems. Quick launches for special occasions and quick retrievals may have been as much related to systems testing as to actual information gathering.

Aviation Week compared the 1982 Soviet launches to previous years by discipline:


"Earth resources photography -- ...seven film-return Earth resources missions in 1982, duplicating... 1981 and 1980...

"Meteor weather spacecraft -- Two... duplicating 1981 and 1980...

"Electronic ferret -- Four...in 1982 compared with three in 1981 and four in 1980. The trend here is to larger but fewer spacecraft. In 1977-1979 there were six launched a year.

"Navigation -- Eleven...including three new Glonass vehicles. ...an increase over 1981 when five spacecraft were launched, previously considered the normal yearly total. (of) eight launches not counting Glonass...One was a failure...and one is performing relay duty for the international search and rescue satellite program."
"Military tactical communications... 16 small spacecraft in two eight-on-one booster launches... (and) four individual tactical communications spacecraft. During... 1981 and 1980 three... eight-on-one launches were conducted.

"Early warning -- Five new missions were flown, the same as in both 1981 and 1980. This is considered a fairly high rate. Only two missions were flown in 1979... The entire constellation of...early warning spacecraft, normally totaling nine spacecraft, had its ground track adjusted in 1982 for better viewing of the U.S., China and ocean areas...

"Science/applications missions -- Only four... launched... Two... with oceanographic characteristics... and two small amateur radio relay spacecraft were deployed from Salyut 7. Two Venera spacecraft... returned... pictures from Venus... although launched in 1981.

"Communications -- Twelve spacecraft in the Molniya and geosynchronous program... launched. This compares to 13 for 1981. Six were geosynchronous and six... Molniyas, one of which failed."

The UPI, reporting on information gained from U.S. intelligence sources, said in May, 1982: 12

"Just how much information the (Soviet) satellites have been able to relay to earth and how much of that the Soviet Union was passing to Argentina was not known by the (U.S. intelligence) sources." (Brackets the authors'.)

UPI also reported these U.S. intelligence sources as saying that:

"The success of photo reconnaissance and radar sensing largely depends on weather conditions... and cloud cover is extensive over the South Atlantic at this time of the year. Poor weather would tend to preclude accurate photographic observation.

"Radar interception is possible, but again depends on the extent of cloud cover... As aboard an aircraft, radar will penetrate only so much moisture because its transmissions would be soaked up by the clouds."

Two Soviet submarines thought to be of the Echo II class were also said to be patrolling the South Atlantic. These submarines were said to have been diverted from the Indian Ocean and near the Cape of Good Hope.
It was assumed by the press that their purpose was to locate the British submarines in the area, in which case they:  

"...could pass that information to the Argentines."

The Soviets were also said to have 35 merchant ships in the area to collect and pass on information.

There were rumors, quickly denied by Argentina, that the Soviet Union had sent technicians into Argentina to help set up a radar network.

The Argentines alternated between denying receiving any Soviet help and threatening to turn to the Soviet's if they did not get their way at the negotiating table. The USSR kept its counsel but let the rumors go on. The Sunday Times pointed out that in the past the USSR had found it politically expedient to let such rumors rage whether or not it was helping out.

"It is possible that the Russians, anxious about their grain supplies from Argentina, may have yielded one or two tidbits gathered from their trawler spy-ships and their Tupolev "Bear" reconnaissance aircraft based in Luanda, Angola, about the British fleet. But is is against the very nature of the Kremlin's thinking to dispense freely their more sensitive information.

"During the Yom Kippur war in 1973, for example, Egypt -- a country with traditionally much closer ties to the Russians than Argentina -- boasted that they were receiving information from Moscow. It suited the Russians not to deny it (just as it suited them not to deny a similar claim from Buenos Aires last week). But it eventually turned out that the Egyptians had received nothing of value." (Brackets, The Times').

Dobson says:

"It would also be unwise for the Russians to give the Argentines detailed accounts of British activities because these reports could reveal secrets of Russia's own electronic espionage capabilities and there is no doubt that there are officers in the Argentine forces who are sufficiently anti-Communist to pass on such reports to Americans..."
The chances are that Russia was much more interested in observing this first NATO type exercise in the Third World and in testing their own satellite systems than in anything else. Even the United States, which had first hand knowledge of NATO plans, was intensely interested in seeing how British tactics worked out. 18

Much to Argentina's disappointment, Russia abstained on UN Resolution 502 calling for withdrawal of all forces from the Falklands. 19 While making noises about the US/British role, the USSR carefully gave no indication of taking a stand itself.

The Soviets were reported to have repeatedly offered arms to the Argentines and the Argentines to have repeatedly rejected them. The fact is that a shift to Soviet arms, with the necessary training, could only be done over a long term period. 20

Hastings and Jenkins say: 21

"...after the war, Argentine officers of all ranks vehemently denied that they had received any data from Moscow..."

Newsweek reported at end April, 1982, that: 22

"It remains difficult for U.S. intelligence to determine what the Soviets are really telling Argentina. That could change if Argentina makes some tactical move revealing special knowledge unavailable to its own intelligence-gathering operations. But for now, U.S. sources predict that the Soviets will continue to talk a better game than they are really playing..."
Chapter 9. The Role of the United States

For a month following the outbreak of the crisis, the U.S., caught between two allies, tried to restrict its role to shuttle diplomacy and attempted a show of even-handedness. However, on April 13th, eleven days after the invasion, ABC News reported that:

"The United States had been providing 'extensive assistance' to British forces through satellite communications links, weather forecasting from satellite observations, intelligence reports..."

"Asked about the report, a Defense Department spokesman referred to previous United States denials that it is helping Britain and said, 'At this point, it's still the same.'"

By the next day, however, Secretary of State Haig made a statement confirming the ABC report. Appearing in the State Department press room, he read a statement which said that the customary assistance which was based on existing bilateral agreements between the U.S. and Great Britain would continue but would not be added to. Such bilateral agreements had permitted the U.S., for instance, to use the British Skynet 2 military satellite during 1981 Mediterranean operations. At that time, terminals were leased to the U.S. Navy.

This customary assistance permitted the U.S. to provide Great Britain with:

"... political and military information on Argentina from a full range of American intelligence resources..."

American officials were said to have shared intelligence with Great Britain dating back to their World War II cooperation. This included intelligence obtained from aerial surveillance, electronic intercepts, covert agents, and diplomatic sources. The U.S. was also said to be helping the British government communicate by satellite both with its fleet en route and with the nuclear submarines which were assumed to have reached the Island area.
It was noted by American and British officials that the British intelligence services had been instrumental in helping the U.S. form its own intelligence organizations during the Second World War, and that cooperation between the two countries had increased steadily from that time onward. The Sunday Times discussed this relationship:

"... we (the British) do rely heavily on American help, and this comes from a variety of sources.

"The so-called UKUSA agreement, signed in 1947, has never had official status. It is not a treaty as such — it has never been ratified by Congress in America or by Parliament in Britain — and it has never been publicly acknowledged.

"But the provision it makes — essentially, for the sharing of vital intelligence between the two countries — gives Britain a unique advantage over its European allies in Nato and is obviously vital in the present crisis.

"In the current situation, America is clearly fulfilling its part of the treaty. 'Everything you've asked for we've given you,' said one Senior US official last week.

"The information has come from two main sources: HUMINT (human intelligence) — and SIGINT (the interception of radio traffic). It is unquestionable that the Central Intelligence Agency has inserted agents at many levels of the Argentinian military and political establishment. More importantly, signals monitored in Washington — between Buenos Aires, the Argentinian fleet and the forces on the Falklands — have provided invaluable information."

(Brackets, The Sunday Times)

James Bamford in The Puzzle Palace calls the UKUSA Agreement "quite likely the most secret agreement ever entered into by the English-speaking world..." and describes it as:

"...Signed in 1947...it brought together under a single umbrella the SIGINT organizations of the United States, Britain, Canada, Australia and New Zealand. Under the pact, the five nations carved up the earth into spheres of cryptologic influence, each country assigned specific targets according to its potential for maximum intercept coverage. Britain, for example, was assigned various Chinese frequencies to cover from its Little Sai Wan station in Hong Kong, and the United States was responsible for other frequencies from its listening posts in Taiwan, Japan, and Korea."
Bamford says that this agreement was the culmination of cooperation between the United States and England which began in the summer of 1940, and which, by May 1943, had resulted in the forerunner to UKUSA, the BRUSA agreement. Of BRUSA, Bamford says:

"...The significance of the pact was monumental. It established for the first time intimate cooperation on COMINT of the highest level. It provided for exchange of personnel, joint regulations for the handling of supersensitive material, and methods for its distribution. In addition, paragraph eight of the agreement provided that all recipients of high-grade COMINT, whether British or American, were bound to the severely strict security regulations that were appended to the document. The cooperation, procedures, and security regulations set out in the BRUSA Agreement serve as landmarks in the history of communications intelligence. Even today, they form the fundamental basis for all SIGINT activities of both the NSA and GCHQ."

Much of British intelligence on the Falklands situation according to Newsweek came from Britain's own resources, classified "Top Secret Umbra." During spy scandals in Britain in Summer, 1982, the British electronic intelligence services were described as follows:

"The headquarters of Britain's electronic intelligence empire is a sprawling compound at Cheltenham, 95 miles northwest of London ... Known in the trade as GCHQ (for Government Communications Headquarters) the facility receives and analyzes data from a worldwide system of spy bases, ships, planes and satellites. It operates round the clock and employs some 10,000 staffers round the globe...

"...The Cheltenham facility is part of a four-nation intelligence net that also includes the U.S., Canada and Australia. GCHQ shares its cryptographic expertise with Washington's top-secret National Security Agency (NSA), an organization that gathers intelligence based on electronic eavesdropping. In return, the NSA passes on some of its intelligence and provides technical assistance. Moreover, the U.S. maintains spy bases in Britain whose data are processed at GCHQ, and Cray I, the complicated computer that does most of Cheltenham's decoding, is American-made."

A Sunday Times article at that time described Cheltenham as being engaged in analyses of computer traffic, telephone, international and
commercial radio, diplomatic and military data in close cooperation with the National Security Agency. It said that:

"The computer technology used by both Britain and America is the most advanced available. The American agency has 11 acres of computers at its vast headquarters near Washington. Cheltenham has an American-build system called Tandem Non Stop which is designed to handle and store vast amounts of electronic traffic for subsequent translation and analysis..."

Richard Lebow, writing in The Journal of Strategic Studies, says:

"... A Fleet Ocean Surveillance Information Center (FOSIC) run by the U.S. Navy in London, analyzes data from their (U.S., Great Britain, Canada, Australia) combined intelligence sources in the Atlantic and routinely passes its reports on to the Royal Navy. A major source of FOSIC's information is the global ship radio monitoring system run by the four powers. Another is the U.S. Navy's four Ocean Surveillance Satellites (OSUS) which use radar and infra-red cameras to detect ships. They can also monitor their radios and radar signals." (Middle brackets, the authors'.)

In a note, Lebow adds:

"Both the OSUS satellites and the Central Intelligence Agency's KH 11 photo-reconnaissance satellites are quite capable of monitoring the Falklands at latitude 52° South. Their range extends as far South as 70°. The U.S. Navy also operates the Sound Surveillance System (SOSUS) which consists of 22 systems of underwater microphones placed in strategic waterways around the world. It is unlikely, despite some newspaper claims to the contrary, that this system was in place in the waters between Argentina and the Falklands."

In an April 1982 article, The Sunday Times reported that much too much emphasis was being put on American spy satellite capabilities vis-a-vis the Falklands. It said that it was a misconception that satellite information in great detail was readily available from such satellites, because no American satellites were then in a position to see much, and even if they were:

"...not even the most sophisticated satellite camera has yet the ability to penetrate thick cloud."
It said the claims were nonsense that:

"...the latest American reconnaissance satellites can not only record the Admiral on board the Veinticinco de Maio (the Argentine aircraft carrier) lighting his cigarette, but can reveal the brand he is smoking..."

In mid-May, 1982 Time described the U.S. satellites in the Falklands area:

"...The U.S. currently has at least two photographic systems orbiting over the South Atlantic, the twelve-ton Big Bird and the newer KH-11. The systems are more sophisticated than the Soviet satellites. Big Bird can swoop from as high as 170 miles (for wide-angle views) to as low as 100 miles (for close-up shots). The KH-11 records images in digital form, rather than on film, and can beam pictures to ground stations around the globe for instant use."

This article pointed out that while no evidence existed that the United States had informed the British where the General Belgrano could be found* -- as the Argentines had claimed -- that the U.S.:

"...eavesdropping and surveillance capability is enabling British naval commanders to receive copies of orders transmitted by the Argentine Defense Ministry almost as soon as they are issued."

The U.S. was also said to be passing on information obtained from Chilean surveillance.

U.S. weather satellites played some role in the Falklands conflict. The U.S. acknowledged it provided information to the British on weather conditions in the South Atlantic, but said that such information is always publicly available. In fact, such information was available in Argentina, as one reporter noted:

"In a mini-newsroom CBS set up on the ninth floor of the Sheraton Hotel (in Buenos Aires), a note is posted on the mirror: "Falklands weather: 202-763-8444." It is a Washington number for satellite weather service. The

---

*The Russians were also accused of fingering the Sheffield by satellite.
Argentine junta had issued a decree outlawing all weather reports from the islands...."

The Soviet Union, of course, accused the U.S. of very sinister motives: 19

"The Pentagon is making active use of civil weather satellites to acquire espionage information of a military nature. As the "Washington Post" reports, at least five mobile stations are at present in operation collecting such data at U.S. Air Force bases. In particular, civil weather satellites were widely used for such purposes during the recent armed conflict between Britain and Argentina over the Falklands (Malvinas). The information received with their help was put at the disposal of the British naval ships heading for the archipelago. On behalf of the U.S. Navy command, the Pentagon even sent thanks to the national weather satellite center for "very important data received during this conflict."

Certainly, weather and Landsat satellites can be used for military viewing. This has come up several times during the recent debate over whether the U.S. should privatise these satellites. In reviewing this controversy, the Congressional Quarterly noted: 20

"The sale of both satellite systems could wind up hurting national security, some members feel. For instance, the weather satellites serve as a backup to the Department of Defense satellites. Weather information provided by the satellites was used by the British navy throughout the Falkland Islands crisis. Photographs taken by the land-focused satellites also are used for military purposes. "There is no question that it could diminish the government's ability to obtain information that could have foreign or military intelligence value," argued Sen. Walter D. Huddleston, D-Ky."

Properly evaluated, Landsat data alone could have military value in a conflict such as that in the Falklands: 21

"...defense planners are more concerned with "site-specific" satellite data than Landsat-type data, but (they) concede that the right blend of private satellite and value-added vendor could provide useful military intelligence. As an example, the use of such data could have alerted the British to the Argentine naval build-up prior to the Falklands invasion."
Some private companies are already providing value added Landsat information, and more would get into the business if Landsat should go private.

The Economist remarked that the best means of observing Argentine fleet movements would be by the American SR-71 Blackbird aircraft, which, it said, flies at 90,000 feet and at up to 2,000 miles per hour. It could, with air-to-air refueling, fly from Ascension Island, said the article, but did not indicate whether, in fact, it was thought to have done so. However, Lebow says that:

"... The United States, in response to a British request, flew such a surveillance mission (by SR 71) in the South Atlantic prior to the Argentine invasion."

Beyond intelligence, the United States is said to have supplied sonar equipped buoys for antisubmarine warfare, laser target indicators, for British ground forces, a radar system for the Seawolf surface-to-air missile system, and at least 1.5 million gallons of aviation fuel. In addition, quantities of 20 mm shells, about 100 Sidewinder missiles, and some KC-aerial tankers were made available, but were probably used in Europe to replenish NATO stocks. As has been mentioned, the U.S. denied AWACs to keep U.S. personnel out of the war. Had the fighting continued, the U.S. had a contingency list of supplies which would have included not only arms and intelligence, but also winter equipment, like heaters and generators.

Hastings and Jenkins reported that:

"...(U.S.) supplies included Sidewinder and Shrike air-to-air and air-to-surface missiles, back up planes to release Victor tankers from Nato duties, fuel and ammunition. Perhaps the most critical American contribution was in the field of signals intelligence, radio communications and relay facilities..."
"...American electronic facilities in southern Chile were made available to Britain — and the Chileans themselves maintained close links with London throughout the war, through a continuous shuttle of military attaches between the two capitals..."

In March 1984, The Economist published an article which revealed the massive extent of U.S. aid. Much of this was said to have been supplied by U.S. Secretary of Defense Weinberger with the assent of President Reagan but without the full knowledge of Secretary of State Haig. First, says the article, the U.S. made Ascension Island usable for the British by repairing roads, building fuel pipelines, and supplying water purification facilities, as well as by diverting 12.5 million gallons of aviation fuel from its own defense stockpiles for the British to use. The article says:

"...American kerosine filled the tanks of Victor refuellers, Nimrod reconnaissance planes, the Vulcans which bombed Port Stanley, the C-130's which dropped supplies to ships and troops..."

Among weapons supplied by the Americans were new AIM-9L Sidewinders, which are super heat-sensitive and can be fired from ahead, from the side, or from behind the target. These replaced older Sidewinders which could only find the target from behind. Adaptor plates to fit these new weapons to the Harriers were also provided. Shrike radar seekers, Harpoon anti-shipping missiles, and eight portable Stinger anti-aircraft systems for use by the Special Air Services were made available. The Shrikes, says The Economist:

"...came complete with intelligence on Argentine radar frequencies."

Submarine detection devices, flare cartridges, and night vision goggles were some of the other things the U.S. provided.
The Pentagon, it said:

"...allocated to the task force some of its military satellite channels..."

and the U.S. sold Great Britain $4 million worth of:

"...special satellite dishes and encrypting equipment..."

This was said to have immensely eased "confidential" communications between Northwood and the South Atlantic and to have allowed direct communications with the submarines. Intelligence gathering capabilities by HMS Endurance was greatly aided, says the article, because the Argentine military code, apparently broken by the Americans, was made available to the British.

Dramatically:

"...in the later stages of the war, Britain persuaded the Americans to move a military satellite from its Soviet-looking orbit over the northern hemisphere to cover the Falklands area. ..."

This maneuver used the satellite's scarce fuel, thus shortening its life. Perhaps more dramatically, the U.S. is said to have planned — in case "anything should happen" to Hermes or Invincible — to immediately turn over the USS Guam to the Royal Navy.

Whether the U.S. aided the Argentines at all in the early days of the conflict is unclear. It has been indicated that the Argentines approached the U.S. for some use of Landsat, but the details of this have not been specified.²⁸

When the U.S. joined the British side, it also imposed economic sanctions on Argentina, as 14 other nations had done. The U.S. sanctions were:²⁹

"Suspending all military exports to Argentina.

"Withholding certification of Argentine eligibility for military sales."
"Suspending new Export-Import Bank credits and loan guarantees.

"Suspending loan guarantees of the U.S. Commodity Credit Corporation."

Most U.S. military exports to Argentina had been prohibited by Congress in 1978 on the grounds of human rights violations. This ban was in the process of re-evaluation at the time the war broke out. In addition, there were some $5 million in military orders which dated prior to the 1978 prohibition.\textsuperscript{30}

One item denied the Argentines under the U.S. embargo was a manual regarding the Argentine bombs that failed to explode on impact. According to Hastings and Jenkins:\textsuperscript{31}

"...The Argentinians were furious to learn later that the bombs' American manufacturers had a manual on ... improvements which was denied them under the U.S. embargo; they regarded such information as normal after-sales service."

The U.S. did not sever trade ties with Argentina, and lively trade continued. In 1981, Argentina had bought $2.4 billion worth of goods from the U.S., and had sold the U.S. $1.12 billion.\textsuperscript{32}

The U.S. is said to have passed messages from Great Britain to the Argentines in the early days of the conflict. These warned the Argentines out of the way of British craft in an effort to avoid incidents.\textsuperscript{33}

The U.S. also gave some thought to its own situation as pointed up by the Falklands war. Senate debates of the 1983 military budget in May, 1982, which included:\textsuperscript{34}

"... a downpayment on a $168 billion five-year shipbuilding and plane procurement program..."

were held with painful awareness that in the three major events in the South Atlantic to that date — the sinking of the General Belgrano
(possibly) by submarine-launched Tigerfish torpedos, the sinking of the 
Sheffield by an air-launched Exocet missile, and the sinking of an 
Argentine patrol boat by helicopter-launched Sea Skua missiles — one 
things was clear:

"... in each case, electronically controlled "smart" 
weapons, some of them relatively inexpensive, won the day."

One official is quoted as saying:

"Why go out and build a $40 million ship when it can be 
wiped out by a $100,000 bullet?"

In a Fall, 1982 article in Foreign Affairs, Stansfield Turner and 
George Thibault emphasized a need for new flexibility of U.S. defenses, 
partially in response to events in the Falklands war. The situation has 
radically changed, they say, since strategies focused solely on defense 
of Europe and Korea were devised, and they ask:

"...Do we not owe it to ourselves to ask whether a different 
strategy might not enable us to be ready for unexpected 
contingencies in the Third World..."

The damage to ships seen in the shift from bombs to missiles in the 
Falklands, the necessity for plentiful distant early warning in all 
combat situations, the need to distribute power over many ships to 
compensate for missile risks are some of the subjects they discussed. 
They also discussed the increased need for sea control to supply 
unexpected areas of conflict:

"...We have only to look at how different the recent 
experience of the British in fighting Argentina was from our 
experiences in Korea and in Vietnam. There we were able to 
utilize our big aircraft carriers close to enemy shore lines 
with impunity, because the enemy had very limited capability 
to challenge us. Today even a few Exocet missiles, such as 
the Argentines employed in the sinking of HMS Sheffield, 
would give an adversary adequate capability to attempt an 
attack."

"The fight between Argentina and Britain over the Falkland islands ... points up the pivotal role of electronic warfare..., which did much to even the struggle between a NATO power and a Third World country. Because of Argentina's modest EW (electronic warfare) capability --- the Exocet missile being only the most publicized example --- Britain barely managed to escape humiliation."  

Among superpowers, certainly, electronic warfare is the way to go. The Electronic Industries Association, says Business Week, has estimated that the total electronic content of all defense hardware for the United States will jump from 40.6 percent or $22.7 billion in 1981 to 47 percent, or $106 billion by 1991. Pointing out that the State Department was monitoring eleven separate wars in June, 1982* Newsweek said:  

"...Third world countries more than doubled their arms purchases during the 1970's, spending $119 billion to stock their arsenals in 1979 alone. The roster of arms buyers is led by a who's who of tindery Mideast nations: Libya, Saudi Arabia, Iraq, Syria and Israel. The main merchants, predictably, are the Soviet Union (44 percent of all foreign arms sales in 1979) and the United States (24 percent)...."  

Wars in the information age are not likely to remain confined to the geographic areas and logistical situations the world has now come to expect. Nor are the odds likely to remain the same. And for good reason. While many smaller countries are still using conventional small arms, this is rapidly changing. More and more sophisticated arms are falling into the hands of nations worldwide:  

"...the big sellers are governments, no longer just disposing of surplus stock while they modernize their own arsenals as they did for two decades after World War II. They are delivering their newest, most sophisticated  

*Israel/Lebanon, Falklands, Iran/Iraq, Afghanistan, Chad, Horn of Africa, Yemen/S. Yemen, Western Sahara, Namibia, El Salvador and Cambodia.
weapons, sometimes produced especially for export. American experts estimate that this year the U.S. will transfer a record total of $30 billion worth of arms abroad in sales and aid."

Flora Lewis gives two reasons why the types of arms have changed in quality as well as quantity over the last few years: 

"...Two events changed the pattern of purposeful production of advanced equipment for export. One was the 1973 oil crisis, which spurred the search for ways to earn back petrodollars. Sale of expensive weapons suited perfectly. The other was the end of the Vietnam war, which brought the U.S. back into the export market so it wouldn't have to shut down plants."

Three-quarters of these arms, she says, are now finding their way into countries of the Third World.

Other giant arms dealers besides the USSR and the U.S. are the United Kingdom, France, West Germany and Israel. One reason the United States sells state of the art arms is to reach the necessary economy of scale. Modern weapons are too expensive, even for the United States, to produce if made only for internal use.

When France resumed its arms shipments to Argentina in August, 1982 -- including nine more Super Etenards and the Exocets to arm them with -- it claimed that it did so to fill a vacuum into which the Soviet Union might step.

"But some European diplomats also pointed out that the French economy was caught in a severe recession and that France had traditionally relied on weapons exports to pull it out of bad times."

France now supplies 27 navies of the world with its various air, land, and sea Exocets and 18 world navies have now bought the AM 39 air-launched version of the type which sank the HMS Sheffield.
Electronically guided missiles are among the arms being most avidly sought after the world over today. This "new kind of weapon":

"...was first used in 1971 when the Air Force destroyed two bridges in North Vietnam that had resisted repeated attacks by conventional bombs.

"The new weapons' first extensive use was in the Arab-Israeli war of 1973. The Egyptians used "fire and forget" missiles against Israeli tanks, and they used Soviet-made surface-to-air missiles against Israeli aircraft. The Israelis used electronic countermeasures that blinded or diverted the missiles as they homed in on their planes and tanks."

This use of electronic measures and countermeasures has, of course, been greatly perfected in the Israeli war in Lebanon of 1982 onward.

The Falklands war gave a huge impetus to and a good sales job for electronic weaponry. Even during the conflict, it is said that would-be Argentine weapons buyers from the state-owned Special Development Company used the Falklands experience as part of its pitch:

"'What we did for the Exocet...we can also do for your product'."

they are said to have wheedled prospective suppliers.

In July, 1982, less than three weeks after the war ended, the British held their annual British Army Equipment Exhibition, attended, as usual by arms buyers from 50 countries. Defense Minister John Nott obligingly posed with a machine gun and called the Falklands success:

"...'a tribute not only to (British troops) but to their equipment.'"

The big interest of shoppers was focused on those weapons which had done well in this showcase war. Newsweek reported that:

"Britain has long been a big winner in the arms bazaar. Last year (1981), 300 defense companies sold $2.5 billion worth of arms to foreign countries--making Britain the world's fourth largest arms exporter behind the United States, The Soviet Union and France. The British sell most of their weapons to oil-rich Arab states or to Commonwealth countries, such as India, Australia and Nigeria."
In an extensive review (plus 10,000 words) of projects by British avionics industries, Aviation Week reported in September 1982 that these firms, three months post the Falklands, were eagerly seeking export markets: 13

"... Most executives are philosophical about the possibility of having to confront their own hardware in some future encounter and some are hopeful that the aftermath of the Falklands campaign will produce orders for new equipment or modifications."

Arms follow the rule of supply and demand. Post war, the Argentinians were furious, said Aviation Week, when the French raised the prices of their products: 14

"'We used the Dassault-Breguet Super Etendard and the AM 39 Exocet antiship missile as they were intended to be used' one Navy officer said. 'We provided wonderful advertising for the French products, and then they raise the price of the Exocet from under $250,000 to over $1 million and the price of the Super Etendard also increased dramatically from the prices we were paying prior to the Malvinas war.'"

Production of various types of Exocets was increased from 18 a month in 1982 to 25 a month in 1983, and by late 1982 had reached the 2,000 mark. Aviation Week reported Aerospatiale was not attributing this to the Falklands conflict especially: 15

"No new orders have been signed as a direct result of the Falklands,' Allier (director of Aerospatiale's Tactical Missiles Division) said. 'It is obvious that interest in Exocet -- particularly the AM39 -- has increased, but in our business it normally takes two to four years between the initial customer interest and the sale.'"

The U.S. Marines, saying that: 16

"The performance of British harrier jump jets in the Falkland Islands confirmed that the aircraft is ideal for U.S. marine Corps needs..."

placed a $240 million order for 12 of the Advanced AV-8B Harriers in July 1982.
The use, often for the first time, in the Falklands conflict of Western electronic arms versus Western electronic arms, pointed up a severe problem to which all the West is heir: That no defenses have been developed against "friendly" weapons. U.S. defense experts are said to admit that this sort of situation applies also in the United States: 17

"The Pentagon does not fund development of countermeasures for its own weapons."

It concentrates, instead, on the weapons developed by its traditional enemy, the USSR. Israel is said to be the only country with enough first hand experience to have been motivated to develop defenses against the weapons of both the East and the West.

In July, 1982, a group of NATO planners in Brussels noted several points learned from the Falklands experience. These showed the need, they said, to develop a command and control structure for operating outside of NATO areas. The planners stressed the absolute necessity for airborne surveillance as shown in the Falklands, and pointed to the proved effectiveness of standard NATO night-fighting techniques in that conflict. 18 Reuters reported in February, 1983, that communications satellites had also proved their worth in the Falklands, and that: 19

"...this lesson is expected to speed up installation of terminals on all NATO warships linking them to satellites."

But the NATO planners in July, 1982, also took note of the problem of the lack of Western defenses against Western weapons. Some of their conclusions were reported by Aviation Week: 20

"Sinking of the HMS Sheffield by the French-built sea skimming Exocet missile means that allied forces may have to be trained to operate against missiles and weapons built by NATO nations."

...
"...extensive use of NATO weapons by Argentina underscored the need for NATO nations to train against alliance-made military hardware..."

"With France, Italy, the U.S. and West Germany providing arms for Argentina, British forces had to adjust operations to fight Western weapons after being trained against Soviet bloc weapons."

"Initial success of the Aerospatiale Exocet missile launched from a Dassault-Breguet Super Etandard aircraft could have been due to the lack of preparation of the British task force in fighting against Western-manufactured weapons..."
Conclusions

Why did the Argentines lose and the British win the war for possession of the Falkland islands? There are probably hundreds of reasons, but in the area of communications and information, the following would seem to be a few:

1. In the armaments area, the Argentines appear to have been quite well equipped. But they lacked the training and overall coordination to be able to use all the sophisticated equipment available to them. They were also deficient in certain communications and information areas, such as radars in their planes that would permit night attacks or raids in bad weather. They lacked the electronic countermeasures to interrupt British communications, for instance. While their pilots were quite brilliant and their Exocet worked, the army of the Argentines, especially, appears to have lacked the knowledge of how to go about conducting a war against a major power in the information age.

2. The Argentines seem to have had a great advantage over the British in the area of surprise. If they, indeed, did not decide to invade until almost the last minute, this would obviously have kept the British in the dark. The element of surprise was also offset by their misinterpretation and miscalculation of the probable British response and their consequent entry into a war without realistic prior planning. But they apparently surprised themselves as much as they did their opponent, and their war plans suffered accordingly.

3. While British command and control was superb, this may well have been the Argentine's weakest point. From the little that is known, there does not appear to have been a coordinated game plan between the various Argentine military services or any provision made to carry one
out. It is unclear whether the whole Junta was even agreed in launching the war. And at the war's end, there was difficulty in ending it because of the Junta's political weaknesses and fragmentation. Being relatively close to the battleground, the Argentines probably did not need the super sophisticated communications so vital to the British. They had secure communications to the mainland, but there appears to have been little coordination of the various attacks on the British by the Argentine military services.

4. In the area of news coverage and control, the repressive Argentine government sometimes looked better than did the democratic British. The world expects less of a dictatorship in the sphere of free information, and a certain illusion of freedom was given in their quite decent handling of the foreign press. While Argentine censorship was probably more rigid than that of Britain, most of the information on the war came to the world via Argentina. A main problem for the Argentine leadership was that it tended to believe its own propaganda, and used the media in some ways for its own self-delusion. It was also unprepared to take rational propaganda advantage of the restrictions the British put on their reporters in the field.

Because of almost complete control over the means of communication, the British government was, in this short time frame, able to control most of the news from the front and to release it to what it considered its own advantage. But whether, given today's instantaneous communications technologies, this could be sustained over any lengthy period of time or in a less closed geographic setting is very doubtful. While necessary to a certain degree for security purposes, misleading or heavy control of its own media by a government is not very healthy for a
democratic society. This also eventually creates adverse worldwide public opinion, as it apparently did to a point during the Falklands conflict. On the other hand, the absence of gory battlefront news, and especially pictures, did retain British public support for the Falklands campaign, or at least this is the opinion of the British government. But playing games with the media rather than developing a working relationship, as was quite successfully accomplished during World War II, is probably a poor policy in the long run.

5. Whether the Soviet Union gave the Argentines intelligence information or not is a matter of question. It certainly did not give them enough -- or they were not capable of using it -- to tip the balance in the Argentine favor. What the conflict did show was the Russian intelligence capability to cover the most remote corners of the earth on a moment's notice. The Russians could, of course, have interfered with British communications, for instance. Their restraint was probably due to two things: a) their desire to collect all information possible about the workings of the information age systems possessed by the NATO powers; and b) the good sense not to enter a sudden and new type of war which lay, furthermore, within the American sphere of influence. The Russians were also probably using this and other opportunities (Lebanon and Iran/Iraq) to test the capabilities of their overall surveillance systems.

6. The entry of the U.S. on the British side certainly lessened, though it did not preclude, Argentina's chances of winning. The U.S. support for the British was almost inevitable given their close, longstanding political relationships. In addition, because of the highly unusual amount of coordination, linkage, and division of labor
between the intelligence systems of the two countries, the British knew what the U.S. capabilities were, knew what to ask for, and were immediately able to put to use whatever facilities and information the U.S. placed at their disposal. For larger reasons, the U.S. could not afford to see Britain defeated, and it probably could not have withheld certain information age equipment without producing permanent ruptures in this important alliance. At best, however, it was a ticklish diplomatic situation which could be more acute in future sudden wars where the two may have different political objectives.

Electronics-based arms and information age equipment have now spread into countries the world over. The economic systems of both East and West have come to rely on their export. These arms narrow the gap in power between the large and small, the sophisticated and the unsophisticated nations. Wars in unlikely areas over unlikely problems may, therefore, create additional threats to world stability. The Falklands is only one of 90 such tinder boxes identified by the Thatcher government during that conflict. Norman Friedman says:¹

"...Argentina may well have provided a model that other Third World countries will emulate in the future."

"...Third World fliers have the Argentine example, which demonstrates that ships are not impossible to sink and that a determined air force... can make itself felt..."
APPENDIX I

Background to the Falklands Crisis

Events leading to the Falklands Conflict fall into several time frames and date to disputes between Great Britain and Argentina's mother country, Spain, in 1771. In that year, say the British, Spain conceded British sovereignty when, after driving the British off the islands, it permitted them to reoccupy. In 1820, the Islands were temporarily occupied by Argentina's forerunner, the Government of Buenos Aires, and sovereignty for the Argentines was claimed in 1829. In 1833, however, the British expelled the Argentine force from the Falklands and has maintained its sovereignty there since.

In 1965, the Argentines, who have never ceased to claim what they call The Malvinas, brought a petition to the United Nations to have sovereignty of the Islands transferred to them. A resolution was passed in the UN General Assembly inviting the two countries to seek a peaceful settlement of their differences.

The British crown colony of the Falklands includes the largely uninhabited South Georgia and the South Sandwich Islands. It is one of only 13 tiny possessions left of the once mighty British Empire. Lying 500 miles at sea off Argentina's southern coast, the Falklands are positioned near Cape Horn and the Strait of Magellan and form a gateway to the Antarctic. They thus have some strategic value, and Britain has used them as a supply base in past wars. They could be useful in case of trouble with the Panama Canal. There are also some rumors of oil and minerals to be found in the surrounding seas. But on the whole, the Islands, which are inhabited only by about 1800 shepherders and have almost permanently awful weather, had become more of a liability than an
asset to Great Britain. But a vocal "Falklands lobby" existed in London which did not want to give them up. Furthermore, the Islanders were adamant in rejecting rule by the Argentines.

In Argentina, regaining The Malvinas was a potent nationalistic focus and one of the few subjects on which most Argentines could be expected to agree. Over the years, in government after government, there had been continuous threats to regain the islands, if necessary, by force.

Talks with the Argentines began under Harold Wilson's first Labor government, which accepted the existence of an Argentine claim. It was generally thought by the British Government that if the Islanders could be brought around, Great Britain would not stand in the way of Argentine rule. When the Heath government came into power in 1970, direct attempts were made to strengthen the Falkland-Argentine tie. Agreements were negotiated with Argentina under which that country provided communications between Argentina and the Falklands and made health services and education available to the Islanders.

Meanwhile, the Argentine government, unstable for years, fell into chaos by the 1970's. The economy was in shambles, and Marxist terrorists practiced gang warfare with each other and with right wing terror squads. Charles Maechling, writing in Foreign Affairs, in the winter of 1981, said:

"... the terrorists ... embarked on a campaign to destabilize the government. They accumulated a war chest by kidnapping executives of multinational companies, foreign diplomats, and rich Argentines. They also began selective assassinations of senior security force officers and government officials. When the security forces retaliated, the strife escalated to urban guerilla warfare that threw society into chaos..."
In 1976, the Argentine Army ousted the ineffective government of Isabel Martinez de Peron, the widowed third wife of Argentina's best known dictator, Juan Peron. The military Junta then took power and promptly began its own terror reign. Night raids, secret jailings, torture, and summary executions became commonplace. The most characteristic feature of the Junta tactics was causing people to disappear:

"According to the records of the Organization of American States (OAS) Inter-American Human Rights Commission -- uncontested by the Argentine government -- security forces caused the disappearance of 6,000 men, women, and children between 1975 and 1981. Estimates of the number of desaparecidos (disappeared) by Amnesty International and Argentine exiles, however, run as high as 20,000 since the commission's records count only persons with case histories on file.

"Only a small portion of the desaparecidos were actual terrorists. Social workers and the intelligentsia were particular targets. Over 100 journalists disappeared. ..."

Throughout the 1970's, talks concerning the Falklands continued between Great Britain and Argentina. But even before the Junta assumed power, the British desire to transfer sovereignty had cooled. Thought was given to some plan for the economic development of the Islands under continued British rule, and beginning in October, 1975, a long-term economic survey was conducted under the leadership of Lord Shackleton. The Argentines reacted hostilely to the arrival of the team, and, in January 1976, ambassadors were withdrawn from the two capitals at Argentina's request. In February, shots were fired in the vicinity of a research ship when it entered "Argentine waters" 200 miles from the mainland. The British deployed a frigate at that time, and in late

*Maechling
1977, they secretly sent a nuclear submarine and two frigates to the area in case of an attempted invasion.

By the late Seventies, things had calmed somewhat in Argentina, and British-Argentine relations had normalized. But the Falklands talks never got back on track, although the economic plan was not implemented and the British declined full British citizenship to the Islanders in the British Nationality Act of 1981. The Thatcher Government examined certain possibilities of passing sovereignty, through some sort of long term leaseback arrangement, but this never got past the "Falklands lobby". Meanwhile, two successive governments had made a decision to withdraw the Falklands patrol ship **HMS Endurance** from the area as a money saving effort. Inconclusive talks continued annually, accompanied by chronic Argentine invasion threats. The last of these talks took place a month before the Falklands conflict erupted.

In Argentina, meanwhile, the military Junta was spending vast amounts of money on arms:

"For a nation that has faced no credible external threat for over a century, the Argentine Military's appetite for expensive hardware and well-padded benefits defies belief... World Military and Social Expenditures reveals that in 1978 Argentina spent $55, $54, and $11 per capita annually for military, educational and health purposes respectively... compared with $18, $55, and $27 for Brazil; $44, $149 and $83 for Venezuela; $365, $927, and $883 for Sweden, and $499, $565, and $341 for the United States, in the same categories."

The advent of a new Argentine President in December 1981, Leopoldo Galtieri, who was more militantly dedicated to repossession of the Malvinas than had been his predecessors, signaled a possible invasion

*Maechling
attempt to the British. However, this was such a chronic threat and had never occurred. Besides, should it take place, it was considered impossible to happen before winter set in in the second half of the year.

The decision by the Argentines finally to invade at this particular time seemed ill-advised, and how it came to be taken is still a puzzle. Winter, when no British fleet could approach the Falklands, was just two months off. It was Easter, when the British fleet is known to always be at home rather than scattered around the world. Several British ships were due to be phased out and some had been sold but not yet delivered to other countries. A short wait would have reduced Great Britain's quick action capability, and the Argentines themselves had many major weapons on order or in the delivery pipeline.

However, with three and one-half months in office, President Galtieri was under tremendous political pressure, and in great need of unifying his people. Inflation was rampant and discontent was rapidly rising. Just two days before the Falklands invasion, there was severe street rioting in Buenos Aires, the worst since the Junta had come to power. By whatever means the decision came to be arrived at, the Argentines obviously gambled that the British would be neither willing nor able to do much about a Falklands takeover.

But Argentina lost its bet. The invasion of their islands by what Great Britain termed a "tin pot" aggressor was a slap in the face to British pride and an intolerable affront to a major NATO member. The British sentiment, as Prime Minister Thatcher -- who had promised to put the "Great" back in Britain — later expressed it was that aggression must not be allowed to succeed, international law must be upheld, and
sovereignty cannot be changed by invasion. Besides, Great Britain still had the third largest navy in the world, ranking just after the Soviet Union and the U.S. Within three days of the invasion, it had mounted an armada and steamed off angrily to the South Atlantic.

The Falklands war lasted 74 days, and when it was over, Great Britain had regained its Islands. Great Britain, which has sent 28,000 people to the Falklands, had also lost 255 men (with 777 wounded), as well as six ships, 24 helicopters, 10 airplanes, and an unspecified number of missiles. The war, it is said, will probably cost Great Britain upwards of $2 billion. The maintenance of troops there will cost added billions, plus be a major drain on a NATO force.

The Argentines had engaged about 12,000 troops on the Islands. Seven hundred and twelve Argentines died, 350 of them during the Belgrano sinking. More than 11,000 Argentines were taken prisoner. The Argentines lost their cruiser, as well as their submarine, the Sante Fe, along with patrol craft, a large portion of their well trained pilots, and at least 117 helicopters and planes. More importantly, they lost their government, and the country was thrown into yet another round of political and economic chaos.
Notes to Appendix 1


4. The survey was announced in October 1975 and was conducted under the leadership of Lord Shackleton. The Shackleton Report was published in May 1976.


APPENDIX 2

TO ANNEX C

NOTE ON THE PROBLEMS OF ARRANGING TELEVISION TRANSMISSION FROM THE SOUTH ATLANTIC GIVEN TO EDITORS AT MEETING ON 21 MAY

Introduction

1. The purpose of this note is to explain the difficulties we face in transmitting TV pictures from the South Atlantic and to outline the attempts which are being made to overcome this problem.

Transmission Techniques

2. In this instance, the most critical feature of a communications system is its "bandwidth". Bandwidth is the amount of the frequency spectrum taken up by a radio, telegraph or TV transmission. Military communications are made up, in the main, of radio (voice) and telegraph (signal) transmissions of narrow bandwidth. Military communications equipment is designed with this in mind and it provides only a relatively narrow transmission channel. Transmission of pictures, however, requires at least 1000 times the bandwidth of telegraph transmissions and frequently (for example, in the case of transmission of colour pictures) more. The passage of these broader transmissions in whole over the narrow military channel is impossible. The technical solution lies either in:

   a. "slicing" the picture so that it can pass, in stages, over the narrow bandwidth military communications channels; or

   b. providing a wider communications channel to accommodate the picture as a whole.

A number of options involving each of these solutions has been investigated, and the results are described below. This has involved extensive cooperation between BBC/TV engineers and MoD communication experts as well as our research and development establishments.

Military Communications Equipment

3. The present long-range communications to and from the Task Force are provided by narrow bandwidth military equipment. The Task Force is operating at the edge of the area of coverage provided by the UK military satellite. Initial trials in the UK have shown that film can be transmitted using the satellite. But operations at the edge of the satellite's coverage results in degradation of its performance; and whilst this remains acceptable from a military point of view for voice and signal transmissions, it would be sufficiently great in the case of pictures and film as to make them unacceptable for use.

Commercial Communications Equipment

4. Voice transmission from reporters in the South Atlantic and, more recently, the transmission of still pictures have until now been achieved using a commercial satellite—MARISAT—and terminal equipment on board Royal Fleet Auxiliaries (RFA) and merchant ships. SS Canberra is similarly fitted, and carries two additional MUIRHEAD terminals for use on other ships in the Task Force. Such equipment will transmit still pictures at the rate of one every eight minutes; but an internationally ratified convention restricts its use to operations from a sea-going ship.

5. Another option is to use "slow-scan" terminal equipment which breaks down the picture into narrow slices which can be transmitted at the rate of about one picture every two minutes. Such equipment is already on board the QE2; and sets could be deployed for other ships in the Task Force. It is thought likely, however, that the reconstituted picture will not be of good enough quality for use. A possible alternative to both of these for the future would be to use commercial 'wide-band' terminal equipment (ie equipment capable of taking the whole of a picture without the "slicing" described above) transmitted via another commercial satellite—INTELSAT.
6. The INTELSAT satellite would also be capable of transmitting film from a ground station either on South Georgia or, eventually, on the Falkland Islands. Such a ground station might use BBC or ITV equipment and men transported to the South Atlantic by Task Force vessels or aircraft. The remaining technical support, especially that of power supply, would, however, need further study.

7. In all of the above, it must be assumed that the Argentines are capable of "dialling into" the commercial satellite involved, and would use any operationally useful information gained thereby to their military advantage.

MEMORANDUM SUBMITTED BY INDEPENDENT TELEVISION NEWS
[DF23, 1981-82]

CONTENTS

<table>
<thead>
<tr>
<th>CONTENTS OF STORY</th>
<th>Date of Filming</th>
<th>Date of Transmission</th>
<th>Delay</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Georgia: still pictures of British forces' repossession</td>
<td>25 April</td>
<td>18 May</td>
<td>23 days</td>
</tr>
<tr>
<td>First pictures in South Atlantic</td>
<td>28 April</td>
<td>13 May</td>
<td>15 days</td>
</tr>
<tr>
<td>Harriers/Sheffield/Capt. Salt interview</td>
<td>1-8 May</td>
<td>26 May</td>
<td>18 days</td>
</tr>
<tr>
<td>Sheffield pictures</td>
<td>7 May</td>
<td>28 May</td>
<td>21 days</td>
</tr>
<tr>
<td>Pebble Island</td>
<td>15 May</td>
<td>7 June</td>
<td>23 days</td>
</tr>
<tr>
<td>HMS Ardent</td>
<td>21 May</td>
<td>10 June</td>
<td>20 days</td>
</tr>
<tr>
<td>San Carlos/Canberra/Bomb alley</td>
<td>21 May</td>
<td>8 June</td>
<td>18 days</td>
</tr>
<tr>
<td>Goose Green/casualties/Medical team/children</td>
<td>28 May</td>
<td>14 June</td>
<td>16 days</td>
</tr>
<tr>
<td>Sir Galahad/Sir Tristram</td>
<td>8 June</td>
<td>24 June</td>
<td>16 days</td>
</tr>
<tr>
<td>Shelling of Stanley (from Argentine sources)</td>
<td>13 June</td>
<td>22 June</td>
<td>9 days</td>
</tr>
<tr>
<td>Shelling of Stanley (BBC/ITN pool)</td>
<td>13 June</td>
<td>25 June</td>
<td>12 days</td>
</tr>
<tr>
<td>Surrender</td>
<td>14 June</td>
<td>25 June</td>
<td>11 days</td>
</tr>
</tbody>
</table>

SUMMARY

1. There were not enough cameramen with the Task Force.
2. Insufficient attention had been paid by the Ministry of Defence to the importance the public would attach to seeing pictures of British forces in action.
3. ITN was convinced that satellite pictures could have been transmitted from Hermes. But there was an absence of will by high authority to try it.
4. ITN accepted the need for censorship where life or operations would be imperilled.
5. There was inconsistency in the censorship criteria applied. Civilian press officers with the Task Force were too rigid.
6. The arrangements for clearance of despatches at MoD, London, were not geared to the speed required by the broadcasters.
WHAT TECHNICAL MEANS WERE AVAILABLE FOR COMMUNICATION WITH CORRESPONDENTS IN THE FIELD?

The Technical Experiment

Voice communication via ship-to-shore telephone was permitted in one direction only—calls (via HF radio while in European waters) and via HF radio and satellite in the Atlantic came in from ships on an opportunity basis. We were not allowed to initiate calls from ITN. Technical quality was variable.

BBC and ITN engineers believed that the technical possibility existed to transmit black-and-white pictures via the SCOT terminals on board Hermes and similarly equipped ships. ITN assigned an engineer, Peter Heaps, to Hermes to test this broadcast system.

At a meeting with Mr Ian MacDonald on 8 April, we repeated our request made regularly over a period of about 10 days by telephone to Cdr Williams and Lt Cdr Sanderson at Northwood to be put in touch with MoD experts to discuss this project.

We were given access to RAF Oakhanger on 11 April where Mike Neusten, ITN, and Ken Oxley, BBC, were able to identify the problems—the need to interface with the military equipment at 70 MHz IF. During these studies we were not permitted a test.

A technical conference was held under the chairmanship of Cdr Peter Longhurst, MoD, with the staff of Royal Signals and Radar Establishment, Defford, on 14 May at which a simulation experiment was arranged for 19 May.

This experiment simulated a Hermes SCOT terminal vision path via Skynet satellite and a land-based earth station path via DSCS and via Skynet III. Both routes provided pictures and a cassette recording was made and subsequently demonstrated at MoD on 20 May. Actual transmissions were refused for operations reasons. (A sample tape is available for viewing if the Select Committee desires.)

When it became clear that clearance was not likely to be given to try a satellite transmission from Hermes, the ITN engineer disembarked at Ascension Island and came home.

The larger warships of the fleet were equipped with SCOT. This is a secure communications system to enable encrypted signals to pass between the fleet and the MoD—teletypewriter only. This was in operation throughout.

Many of the auxiliary vessels were fitted with MARISAT terminals. This is a commercial satellite system available to all vessels, but not secure and thus naval vessels were not so equipped. The system is very efficient and is as easy as making a long-distance telephone call. We were allowed to use this route for censored reports: either live, by the correspondents transferring to the auxiliary vessel; or recorded, by a cassette being recorded on a warship, censored, and then carried to the auxiliary ship and transmitted by the radio staff. Delay on this system was limited to the availability of helicopter flights between vessels.

Although Signals companies did set up communications terminals on the Falklands, we did not have access to these and voice-pieces had still to be sent via MARISAT (thus necessitating the correspondents having to return to an auxiliary vessel).

Direct negotiations with Cable and Wireless enabled the C & W Earth Station on Ascension Island to be equipped for TV transmission. ITN and BBC each agreed to contribute £7,500 towards the cost of this work and MoD were helpful in arranging transport. The earth station came on stream on 26 May and provided excellent picture quality. However, no news material ever came through Ascension Island that was not at least 8-10 days old.

One constructive suggestion put forward by ITN engineers involved in this experiment is that technical officers from all three Services would benefit from a thorough briefing on the logistics and technology of TV signal distribution, much as Staff College students are given insight into the way the media work. ITN would be ready to play a part in arranging suitable instruction and practical demonstration of the Services thought this to be a good idea.

It is a tragedy that television signals could not be transmitted by satellite from the Task Force. It would not only have revolutionised the nature of the coverage, but it would have represented a major achievement by Britain in television technology.
The Reporter's Experience

Michael Nicholson writes:—

Satcom

“During the first week in San Carlos Water we were told by Army public relations and MoD public relations that a satellite communication link was being set up at Ajax Bay. This would enable us to transmit copy by telex and by voice link and would save us the problem of getting to the Marisat ships. Copy was initially telexed this way but whenever I attempted to get a voice link to UK I was told the line was too busy/out of order/too much interference, etc. Nobody got voice reports out via SATCOM and eventually all journalists resorted to the Marisat ships again for voice and telex copy.

Marisat

“This war would have gone unreported had it not been for Marisat. The Royal Fleet Auxiliary crews were marvellous and gave us unstinted co-operation. However, once we were into Stanley and RFA Sir Bedivere was alongside the quay the Press were made to queue up in the long line of soldiers who were making telephone calls home. The arrangement was six soldiers to one press man. It meant we would have to wait upwards of four hours for a short call. This arrangement severely restricted the flow of news.”

1. The only arrangement made under MoD auspices for broadcasting to the Falkland Islands or Argentina was the radio station, Radio Atlantico del sur (RADs). The Government decided to set up this station which was entirely separate from Government Information Services on 18 May 1982. The following day, the Permanent Under Secretary, on behalf of the Secretary of State for Defence, instructed the Director General of the BBC to release its transmitter Number 302 on Ascension Island for Government use between the hours of 0815-0945 and 2300-0200 GMT daily from 19 May until further notice. This action was taken in accordance with Article 19 of the Licence and Agreement of 2 April 1981 between the Government and the BBC, which allows the Government, during times of emergency, to make such use of BBC facilities as it considers to be necessary in the public interest. RADs began broadcasting on the night of 19 May and continued until 16 June. The transmitter was returned to the BBC that same day.

2. The station was established to broadcast in Spanish to the Argentine forces on the Falkland Islands, to make them aware of events in the South Atlantic and of world news and opinion on the crisis, free of the censorship imposed by the Argentine Government. The programmes, consisted of popular music likely to appeal to Argentine conscripts, interspersed with news and discussion items based on selections from world media reports. MoD policy was that no lies should be told.

3. The handling of news items, particularly about the Falklands campaign, was seen as an area in which controversy might arise. The Station therefore collated all its news items from other media reports, and made this clear in its broadcasts. This served the dual purpose of establishing credibility and avoiding any possibility that RADs might inadvertently release information before the UK media were permitted to do so.

4. There were, of course, other broadcasts reaching the Falkland Islands—including the BBC external services—but these were aimed at a rather different “market” from the Argentine conscript. There was, therefore, a gap to be filled. In view of the specific nature of the task and the vital importance of ensuring that there was no suggestion of any interference with the BBC’s editorial independence it was thought appropriate that the Government should clearly be seen to be running the station.

Preface.


0-3. Ibid.

Chapter 1. Introduction.


1-5. "Dealing With Old Reliable Firms," Time, April 26, 1982, pg. 28.


1-7. Many sources including:


David C. Martin, "Playing The Spy Game," Newsweek, April 26, 1982, pg. 44.

"Britannia Scorns to Yield," Newsweek, April 19, 1932, pgs. 40-43.


"What Do We Know About the Enemy?" Sunday Times (of London), 18 April, 1982, pg. 15.

1-8. Many sources, including:


1-12. Ibid.


1-17. Many sources, including:


1-19. Ibid.


Rodney Cowton, "The Day Argentina told Britain by Telephone: 'Stop Everything,'" The Times (of London), Tuesday, June 14, 1983, pg. 28.


1-27. Ibid, pg. 76.


Chapter 2. The Armaments Proving Ground.

2-1. Some of the many uncited sources used in this section were:


2-3. Ibid.

2-4. Ibid, and also:


2-6. Colonel Jonathan Alford, "Command, Control and Intelligence ..." supra note 1-11.


For a French denial of such aid, see: "French Investigate Role of Team in Argentina," Aviation Week & Space Technology, August 16, 1982, pg. 52.


Perrin Clausen, "Surprise Key to Exocet Strikes. Argentine Official Credits This Element with Success of Attacks of May 4 on HMS Sheffield, May 25 on Atlantic Conveyor," Aviation Week & Space Technology, June 7, 1982, pg. 15.


2-15. Ibid., pgs. 112-113.


Norman Friedman, "The Falklands War..." supra note 1-4.


Norman Friedman, "The Falklands War..." supra note 1-4.

2-21. Hastings and Jenkins, The Battle For the Falklands, supra note 1-10, pg. 150.

The Sunday Times Insight Team (supra note 2-17, pg. 158) reported that:

"...(the Tigerfish is) in the opinion of some submariners, unreliable; the fact that during trials -- off Malta in 1967 -- a test Tigerfish independently changed course by 180 degrees, and very nearly sank its launch submarine, is well known in the navy." (Brackets, the authors'.)


2-24. Hastings and Jenkins, The Battle for the Falklands, supra note 1-10, pg. 177.


2-26. Many sources, including: Hastings and Jenkins, The Battle for the Falklands, supra note 1-10, pg. 118.


The Sunday Times Insight Team (supra note 2-17, pg. 163) says of the Sea Dart:

"Unlike Sea Wolf, it relies on other radar to detect the target and on human beings to decide if it is hostile. Unlike Sea Wolf, it can only take on one target at a time. And unlike Sea Wolf it cannot hit anything flying at under 2000 feet..."

Robert Fox (in Eyewitness Falklands. A Personal Account of the Falklands Campaign, Methuen, London, 1982, pgs. 142-143) says of the Sea Wolf anti-aircraft, anti-missile missile:

"...It is intended to be a close-range weapon, so had the tendency... to defend first and foremost its own whip and not a line or squadron..."

(Authors' note: This is probably why Broadsword's Sea Wolf was of little use to Coventry when that ship was hit by bombs.)

On pg. 236 of the above reference, Fox quotes a Royal Navy missile expert as saying:

"The trouble with Sea Dart is that it is under-automated in some respects...The trouble with Sea Wolf was that it was too automated for some of its tasks in the Falklands campaign."


2-34. Ibid., pg. 19.


2-37. Colonel Jonathan Alford, "Command, Control and Intelligence...", supra note 1-11, pg. 45.


2-40. Hastings and Jenkins, The Battle For the Falklands, supra note 1-10, pg. 313.

2-41. Ibid, pg. 326.
Chapter 7. Intelligence Failure or Political Misjudgment.


3-9. Ibid.


3-16. Hastings and Jenkins, *The Battle For the Falklands*, *supra* note 1-10, pg. 58.
3-17. Ibid, pg. 91.


3-19. Ibid.

3-20. Ibid.

3-21. Colonel Jonathan Alford, "Command, Control and Intelligence...", supra note 1-11, pg. 46.

See also "The Misjudgments That Led to The Falklands War," The Economist, June 19, 1982, pg. 35 for a good history of events well prior to the invasion.


Chapter 4. British Command, Control, Communication and Intelligence.

4-1. The Economist, (Chart), April 24, 1982, pg. 25.


4-6. Hastings and Jenkins, The Battle For the Falklands, supra note 1-10, pg. 126. (This one sentence only).


4-8. Hastings and Jenkins, The Battle For the Falklands, supra note 1-10, pg. 224.

4-9. The Sunday Times Insight Team, The Falklands War, supra note 2-17, pg. 213.

4-10. "Final Act...", supra note 4-3, pg. 38.


4-12. Hastings and Jenkins, supra note 1-10, (in general).

4-13. Ibid., pg. 232.
4-14. Colonel Jonathan Alford supra notes 1-2 and 1-11, and Neville Trotter, supra note 4-5.


4-21. Ibid.


4-24. Hastings and Jenkins, The Battle for The Falklands, supra note 1-10, pg. 149.

4-25. Ibid., pgs. 150-151.

4-26. Colonel Jonathan Alford, "Command, Control and Intelligence...", supra note 1-11, pg. 44.

4-27. Ibid.

4-28. "Final Act...", supra note 4-3.

4-29. Hastings and Jenkins, The Battle for the Falklands, supra note 1-10, pg. 205.


4-31. Hastings and Jenkins, The Battle For The Falklands, supra note 1-10, pg. 324.
4-32. Ibid., pg. 91.

4-33. Ibid., pg. 133.

4-34. Ibid., pg. 91.

4-35. Ibid., pg. 208.

4-36. Colonel Jonathan Alford, "Command, Control and Intelligence...", supra note 1-11, pg. 45.

4-37. Ibid.


4-39. Colonel Jonathan Alford "Command, Control and Intelligence...", supra note 1-11, pg. 46.

4-40. Ibid., pg. 45.

4-41. Ibid., pg. 46.

4-42. Hastings and Jenkins, The Battle For the Falklands, supra note 1-10, pg. 291.


4-44. Colonel Jonathan Alford, "Command, Control and Intelligence...", supra note 1-11, oral presentation.

Chapter 5. Argentine Command and Control.

5-1. Norman Friedman, "The Falklands War...", supra note 1-4, pgs. 910-911.

5-2. Ibid., pg. 912.


5-4. Hastings and Jenkins, The Battle for the Falklands, supra note 1-10. pgs. 219 and 325.


5-6. Hastings and Jenkins, The Battle For the Falklands, supra note 1-10, pg. 219.

Chapter 6, Argentina And The News.


6-2. Ibid.

6-3. Ibid.

6-4. Ibid.

6-5. Ibid.

6-6. Ibid.

6-7. Ibid.


6-10. Ibid.


6-17. James M. Markham, "Buenos Aires Teems..." supra note 6-8.


7-1. The Handling of Press and Public Information..., supra note 1-18.

7-2. Ibid., Volume II. "Response to Questions Raised by the Committee. Question E. How Did Facilities and Briefings Provided by the Ministry of Defence Compare with Facilities to Cover Military Conflicts in Other Parts of the World?", pg. 72.


7-4. The Handling of Press and Public Information..., supra note 1-18, Volume II, "Memorandum by The Sunday People," pg. 94.


7-7. "Mrs. Thatcher..." supra note 7-6, for both of the last quotes. Also, Alan H. Protheroe, personal communications.
7-8. The Handling of Press and Public Information..., supra note 1-18, Volume I. pg. xxiv., paragraph 51.

7-9. Ibid, para 52.

7-10. Ibid, paras 52 and 53.


7-15. The Handling of Press and Public Information..., supra note 1-18, Examination of Witnesses. Sir Frank Cooper, Permanent Under Secretary of State. Volume II. pg. 23.

7-16. The Handling of Press and Public Information..., supra note 1-18, "Answer to Question B, "How Effective and Consistent were Procedures for Vetting Copy and Despatches?" Volume II. pgs. 66-67.


7-21. Ibid., "Testimony by BBC, Mr. Alan Protheroe, Assistant Director General of the British Broadcasting Corporation," Volume II. pgs. 53-54.
7-22. Ibid., ITN Testimony, answers to Question F. "What Technical Means were Available for Communications with Correspondents in the Field?" Volume II, pg. 74.


7-31. The Handling of Press and Public Information... supra note 1-18, Volume II, pg. 43.


7-34. The Handling of Press and Public Information... supra note 1-18, Volume I, pg. V.

7-35. Ibid. Volume II, pg. 74.

7-36. Ibid. Volume II, pg. 455.

7-37. Hastings and Jenkins, The Battle For the Falklands, supra note 1-10, pgs. 158 and 257.


"Coming Off the Fence," The Sunday Times (of London), May 2, 1982, pg. 18.


7-41. The Handling of Press and Public Information..., supra note 1-18, pg. lx, para xx. Volume I.


7-45. Ibid.


7-48. Saul Friedman, "Pentagon Controlled..." supra note 7-44, pg. 13A.

Chapter 8. The Role of The USSR.


8-6. Christopher Dobson, et als., Falklands Conflict, supra note 3-1, pg. 101.


8-8. Ibid.

8-9. Ibid.

8-10. David C. Martin, "Playing The Spy Game," Newsweek, April 26, 1982, pg. 44.


8-16. "What Do We Know About the Enemy?" The Sunday Times (of London), 18 April, 1982, pg. 15.

8-17. Christopher Dobson, et als., supra note 3-1, pg. 100.

8-18. See also for other speculations as to what the USSR might have been up to:


8-22. David C. Martin, "Playing the Spy Game," supra note 8-10, pg. 44.

Chapter 9. The Role of the United States.


9-4. Ibid.

9-5. "What Do We Know About the Enemy?" supra note 8-16, pg. 15.


9-11. Ibid., note 2, pg. 33.

9-12. "What Do We Know...." supra note 8-16.


9-16. "What Do We Know...." supra note 8-16.


9-22. "We Like It So Far,", The Economist, April 24, 1982, pg. 28.


9-29. "Now, Alas ...," supra note 6-24, pg. 22.


9-35. Ibid.


9-38. Ibid., pg. 125.


10-2. Ibid.


10-12. Ibid.


Conclusions
