BOARD OF DIRECTORS

C. S. ANDREN President B. L. McGANN . . . Vice President L. F. FEHLNER Secretary D. CARTER Treasurer J. ALEXANDER B. AMBROSENO J. M. BEUKERS J. F. CULBERTSON W. N. DEAN L. D. HIGGINBOTHAM I. D. ILLGEN V. L. JOHNSON P. VAN ETTEN V. I. WEIHE

WILD GOOSE ASSOCIATION

13 April 1983

MINUTES OF THE 59th MEETING OF THE BOARD OF DIRECTORS

The 59th meeting of the Board was held as scheduled Wednesday, 13 April 1983, in Conference Room 5334, NASSIF Building, 400 Seventh St., S.W., Washington, DC. Capt. Bill Kohl arranged for the conference room.

The following attended:

Directors

C. S. Andren

- E. L. McGann
- L. F. Fehlner
- D. A. Carter
- V. I. Weihe

The number of Directors present did not meet the quorum requirement. All members of the Executive Committee were present. The agenda is presented as Exhibit 1.

Item 1 - Call to Order

The meeting was called to order by President Carl Andren at 0950, 13 April 1983.

Item 2 - Secretary's Report

The minutes of the previous meeting were approved as distributed.

Fehlner read a letter received from Admiral Sargent and his letter to General Evans which he had enclosed for forwarding. These are Exhibits 2 and 3.

A letter was received from John Illgen forwarding a resume in support of his nomination of Mike Eaton for the Medal of Honor. See Exhibit 4.

Bruce Serinis

Non-Members

Robin Orr

Minutes Page 2

Fehlner reported on the cost of procuring additional lapel pins. The initial buy incurred costs of \$3.10/ea. for gold and \$2.95/ea. for silver. The current estimate of cost of either is \$8.00 to \$8.50/ea. The supplier will be asked for a firm cost as a function of number ordered.

Item 3 - Treasurer's Report

Acting Treasurer Andren presented the treasurer's report. See Exhibit 5.

Item 4 - Standing Committee Reports

a. Awards - Andren will call Frank since an Awards Committee report was not received on schedule.

b. Constitution - The action item proposed at the last Board meeting was discussed resulting in a motion by McGann as follows:

It is moved that the Board Meeting held at the Annual Convention shall be formally incorporated in the Convention agenda at a time that encourages and permits the participation of the attending members; and this opportunity to address their suggestions, concerns, etc. to the Board shall be included in the Convention publicity.

Carter seconded. Motion carried.

The Board requests Chairman Johnson to prepare a resolution for action at the next meeting which put in effect the recommendations of the Committee presented at the last Board Meeting. (See Exhibit 6 of the Minutes of the 58th Board Meeting.) The Board suggested two Board meetings per year at fixed times, namely at the Convention and at some other reasonable place and time of the year. With the importance that would be attached to these two meetings, the Secretary suggests that Robert's Rules of Order should be followed, that is, the meeting should immediately adjourn if the requirement for a quorum is not met.

c. Convention

1. 1982 Proceedings - Carter noted that D. Amos set April deadline for photo-ready copy.

2. 1983 Convention - Convention Administrator Robin Orr presented the plan for the 1983 convention. See Exhibit 6. Andren requests technical chairman Sherman to report on status of papers in June.

d. Historical - No report

e. Journal 1983 - Ambroseno is expected to accept the editor assignment again this year.

Minutes Page 3

f. Membership - Bruce Serinis has volunteered to be the Membership Chairman. As the result of a unanimous decision by the Executive Committee, Fehlner will execute the plan to buy a computer, necessary software and peripherals and get it set up to handle the membership records as a cooperative effort with Serinis. When satisfactorily set up, the computer will reside with the Membership Chairman. The Executive Committee approved reasonable costs for secretarial help for initial membership record entries. The Membership Chairman can be reached as follows:

> Ens. Bruce Serinis 3151 Yale Court Woodbridge, VA 22192 Phone (703) 494-0589 Office (202) 755-1515

q. Newsletter - No report

h. Nomination and Elections - No report Andren will call Dean since a report on 1983 elections has not been received on schedule.

Item 5 - Special Committees

a. Government Liaison - McGann will initiate plans for a Loran-C celebration in 1984.

McGann presented a recent GAO observation regarding GPS. See Exhibit 7. He also suggested that the Board consider a special committee or perhaps individual assignments to persons each of whom could actively persue liaison with a single loran-related organizations such as FAA or NMEA or RTCA or RTCM or others as they come to our attention.

Item 6 - New Business

Weihe suggested the WGA prepare a position paper on position reporting by land, air and sea vehicles. Weihe agreed to prepare an outline for such a paper for consideration at the next meeting.

Item 7 - Adjournment - The meeting adjourned at 1140 on a motion by Carter.

De Fellere

Leo F. Fehlner Secretary

Distribution:

Directors Chairmen

BOARD OF DIRECTORS

C. S. ANDREN President B. L. McGANN . . . Vice President L. F. FEHLNER Secretary J. ALEXANDER B. AMBROSENO J. M. BEUKERS J. F. CULBERTSON W. N. DEAN L. D. HIGGINBOTHAM J. D. ILLGEN V. L. JOHNSON J. P. VAN ETTEN V. I. WEIHE

Exhibit 1



WILD GOOSE ASSOCIATION

April 8, 1983

- TO: WGA Directors and Committee Chairmen
- WGA President FROM:
- 59th Meeting of the Board of Directors SUBJ:

The next WGA Board of Directors meeting will be held Wednesday, April 13, 1983 at 9:30 AM in Conference Room 5334, NASSIF Building, 400 Seventh Street, S.W., Washington, D.C. Contact if needed is Capt. Bill Kohl, telephone (202) 426-9520.

AGENDA

- 1. Call to order
- 2. Secretary's Report
- 3. Treasurer's Report
- 4. Standing Committee Reports

|--|

Frank Johnson

Andren

Illgen

- Constitution b.
- c. Convention 1. 1982 Proceeding Carter Carter
- 1983 2. Historical d.
- Journal 1982 e.
- Dean Ambroseno
- Membership f.
- Newsletter g.
- Nominating and Election Dean h.
- Special Committee Reports 5.
 - Government Liaison а.

New Business 6.

Exhibit 2 🐪 🎍



VICE ADM. THOMAS R. SARGENT III UNITED STATES COAST GUARD (RET.) 1311 SAN JULIAN DRIVE LAKE SAN MARCOS, CA. 92069

7 February 1983

Mr. Carl S. Andren Wild Goose Association, Inc. Box 413A Acton, Massachusetts 01720

Dear Mr. Andren:

Please forward the enclosed letter to General William J. Evans whose comments concerning the DCPG and the effectiveness and value of the Loran-C system in southeast Asia I so very greatly appreciate.

My congratulations to you for your election as president of the Association. I am sure, under your guidance, the Wild Goose Association will continue to prosper and to expand.

One other small favor - Would you insert under my name in the membership list my affiliation "U.S. Coast Guard". After having served 40 years, I still have pride in the service.

Many thanks for accomplishing the above. I look forward to continued progress with the Association.

Sincerely, Man

THOMAS R. SARGENT, 11/ Vice Admiral USCG(Ret)

Encl



VICE ADM. THOMAS R. SARGENT III UNITED STATES COAST (ID. (RET.) 1311 SAN JULIAN DRIVE LAKE SAN MARCOS. CA. 92069

7 February 1987

Exhibit 3

General William J. Evans c/o Wild Goose Association Box 413A Acton, Massachusetts 01720

Dear General Evans:

I read with great appreciation your Foreword in the recent Wild Goose Association Radionavigation Journal concerning the Defense Communication Planning Group and the use of Loran-C in Vietnam.

Although I was not a member of that really outstanding group, I did have the privilege of being assigned to construct and place in operation the Loran stations in Thailand and Vietnam. Although I had been connected with the Loran-C developemnt and construction since 1958, my service in Southeast Asia was probably the most rewarding of that phase of my Coast Guard career. My construction detachment officers and men and the Air Force personnel in Washington and overseas were so dedicated and motivated that all my hard work became easy!

After several more years of service and during my appointment as Vice Commandant of the Coast Guard, I had the additional privilege of being instrumental in the acceptance of the Loran-C system as the electronic aid to navigation for the coastal confluence zone.

Your comments are the first I have heard concerning the DCPG and the importance of the Loran system in Vietnam. I thank you on behalf of all of us who were involved in this project. You have made my day!

Sincerely, THOMAS R. SARGENT, 111

Vice Admiral USCG(Ret)

Exhibit 4 Page 1

Mr. Robert Frank 30785 River Crossing Birmingham, MI 48010

Dear Bob:

Enclosed you will find a resume for Mike Eaton as promised. Mike is being considered as a candidate for the Medal of Merit award for the Wild Goose Association.

Sincerely,

John D. Illgen

JDI/sg

cc: W. Dean

- J. Culbertson
- L. Higginbotham
- C. Andren
- L. Fehlner V. Johnson
- E. McGann
- J. Van Etten
- V. Weihe
- J. Alexander



816 State Street,
Santa Barbara, CA. 93102

Exhibit 4 Page 2

R.M. Eaton - Resume

Mike Eaton was born in England in 1928 and educated in Scotland. He served twelve years in the British Navy, seven of them surveying with Admiralty Hydrographic Service in United Kingdom and eastern waters. He joined the Canadian Hydrographic Service in 1957. He was Hydrographer-in-Charge of the Polar Continental Shelf Project for five years. In this job he developed several new techniques for surveying and positioning in the Canadian Arctic. He obtained a bachelor's degree in physics in 1970, and has been Head of the Navigation Group at the Bedford Institute of Oceanography (BIO) Dartmouth, Nova Scotia for the past In this role, he introduced Loran-C use to twelve years. Canada, firstly, as an economical tool for positioning bathymetric and geophysical surveys on Canada's continental shelves. Mike played a major part in expansion of the Loran-C main chains into Canada in the late seventies. The thorough knowledge of the Loran system he gained in survey work, in the rho-rho mode, was applied to calibration of the new chains for chart latticing. He continues his work at BIO in a variety of navigational projects ranging from integrated Satnav/Loran systems, investigation of propagation effects at various frequencies on positioning accuracies, to evaluations of precise navigation systems for the Arctic. Of course, Mike also continues to be a strong and respected proponent for Loran in Canada.

Some of the Papers Written by Mike Eaton

- Eaton, R.M. and S.T. Grant. Rho-rho Loran-C for offshore surveys. <u>The Canadian Surveyor</u>, Vol.26, No.2, June 1972.
- Eaton, R.M. Tests of Loran-C performance, <u>Canadian</u> <u>Aeronautics and Space Journal</u>, Vol.21, No.4, April 1975.
- Eaton, R.M., D.E. Wells and N. Stuifbergen. Satellite navigation in hydrography, <u>International Hydrographic</u> Review, Vol. 53, No.1, January 1976.
- Eaton, R.M., E. Schening and N. Stuifbergen. A long range performance test of Loran-C in Atlantic Canada. <u>Proceedings of the 7th Annual Technical Symposium of</u> the Wild Goose Association, New Orleans, October 1978.
- Eaton, R.M., A.R. Mortimer and D.H. Gray. Accurate chart latticing for Loran-C, <u>17th Annual Canadian</u> <u>Hydrographic Conference Proceedings</u>, Sidney, B.C. 1978. Reprinted in <u>International Hydrographic Review</u>, Vol.56, No.1, January 1979.
- Eaton, R.M., A.R. Mortimer and D.H. Gray. Offshore calibration of Canadian West Coast Loran-C Chain, Proceedings of the Wild Goose Association 6th Annual Technical Symposium. Seattle, October 1977.
- Mortimer, A.R., R.M. Eaton and D.H. Gray. Calibration of the West Canadian Loran-C Chain, Canadian Aeronautics and Space Journal, Vol.24, No.3, May/June 1978a.
- Mortimer, A.R., D.H. Gray and R.M. Eaton. A Loran-C calibration, the West Canadian Chain offshore operations and data analysis, unpublished manuscript, Pacific Marine Science Report 78-13, Institute of Ocean Sciences, Sidney, B.C. 1978b.
- Mortimer, A.R., D.H. Gray and R.M. Eaton. A Loran-C calibration, the West Canadian Chain inshore operations and data analysis, unpublished manuscript, Pacific Marine Science Report 78-17, Institute of Ocean Sciences, Sidney, B.C. 1978c.
- Mortimer, A.R., R.M. Eaton and D.H. Gray. A Loran-C calibration, West Canadian Chain synchronized time of arrival measurements, unpublished manuscript. Pacific Marine Science Report 78-22, Institute of Ocean Sciences, Sidney, B.C. 1978d.

- Eaton, R.M. Range Errors in Microwave Systems, Lighthouse, Edition 23, April 1981.
- Eaton, R.M. Loran-C Compared with other Navigation Aids in Meeting Future Canadian Needs, Canadian Aeronautics and Space Journal, Vol.21, No.4, April 1975.
- Eaton, R.M., E. Schening and N. Stuifbergen. A Long Range Performance of Loran-C in Atlantic Canada, Wild Goose Association Convention, New Orleans, Oct. 1978.
- Eaton, R.M. Sounding Accuracy Atlantic Oceanographic Laboratory, Internal Note 1968-18-I, Bedford Institute of Oceanography, Dartmouth, N.S. August 1968. Unpublished Manuscript.
- Eaton, R.M. Assignment to the Danish Hydrographic Office, 10th Annual Canadian Hydrographic Conference, Dartmouth, N.S. March 1971.
- Eaton, R.M. New Departure in Navigation, 12th Annual Canadian Hydrographic Conference, Victoria, B.C. March 1973.
- Eaton, R.M. Loran-C as the Coastal-Offshore Navigation Aid for Canada. 13th Annual Canadian Hydrographic Conference, Burlington, Ont. March 1974.
- Eaton, R.M. Satellite Navigation in Hydrography, 14th Annual Canadian Hydrographic Conference, Halifax, N.S. March 1975.
- Mortimer, A., M. McAloney, R.M. Eaton, E. Schening and B. Waldock. A Loran-C/Accufix Evaluation in the Canadian Arctic. Proceedings of the 10th Annual Technical Symposium of the Wild Goose Association, San Diego, October 1981.
- Eaton, R.M. et al. Beaufort Sea Loran-C Tests. Canadian Aeronuatics and Space Journal, Vol.28, No.1, March 1982.

BOARD OF DIRECTORS

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E . L	. McG	ANN		. Vice	President
L. F	F. FEH	LNER			Secretary
D. (CARTE	R			Treasurer
J. A	LEXA	NDER			
B. /	AMBRO	SENO			
J. M	I. BEU	KERS			
J. F	. CUL	BERTS	SON		
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L. I). HIG	GINBO	TH	AM	
J. D). ILLO	GEN			
V. 1	. JOH	NSON			
J. P	. VAN	ETTE	N		
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Exhibit 5



WILD GOOSE ASSOCIATION

TREASURER'S REPORT

April 13, 1983

Previous Balance

\$1,047.15

Transactions

Receipts

Dues	\$ 404.00
Journal Sales	30.00
Journal Ads 1982	<u>4,716.25</u>

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\$5,150.25

\$6,197.40

Expenditures

1982 Journal -	
Postage Expense	745.17
Stationary Expense	<u>138.60</u>

Balance as of 4/13/83

Submitted 4/13/83

Carl S Andren President for D. Carter, Treasurer \$883.77

\$5,313.63

Approved by Board of Directors

L.F. Fehlner Secretary Exhibit 6 Page 1

WILD GCOSE ASSOCIATION PLAN FOR 1983 CONVENTION

THEME :

ORGANIZATION:

Chairman Vice Chairman Technical Chairman Administration Hospitality Golf Tennis Bob Schellhase Dave Carter Hal Sherman Robin Orr Bob McKeown Dave Carter

RESPONSIBILITIES:

Chairman-

Responsible for overall convention planning and coordination of committee activities, including:

- Develop convention plan and budget
- Acquire and administer convention funds
- Select convention hotel and act as liaison between WGA and hotel management
- Execute agreements between hotel and WGA
- Report to board of directors on all convention committee activities

Technical Chairman-

Responsible for overall conduct and organization of the technical sessions of the convention, including:

- Call for papers
- Review abstracts and select papers, form subcommittee if appropriate
- Correspond with authors concerning paper submission and review
- Organize and prepare technical program agenda
- Select and coordinate session chairmen
- Insure authors show up and are assisted where needed and continue liasion with authors throughout the convention.

SCHEDULE:

Call for papers	Apr 15
Press release	May 15
Abstracts due	July 1
Technical session plans complete	Aug 1
Main mailing	Aug 1
Final mailing (with program)	Sept 15
Advance registration cutoff	Oct 10
Convention	Oct 12 - 14
Cocktail reception	Oct 12
Luncheon	Oct 13
Banquet	Oct 13
Luncheon	Oct 14

Exhibit 6

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		1983	
	ESTIMATED EXPENSES	BUDGET	
1	SESSIONS:		
2	ROOM (WED 1/2 DAY)	175	
3	ROOM (THURS ALL DAY)		
4	Room (FRI ALL DAY)		
5	AUDIO-VISUAL EDUIPMENT	275	
6	COFFEE BREAKS: WED (PM)	180	
7	THURS (AM&PM)	455	
8	FRI (AM)	275	
9			
10 11		1460	
11 12 13			
12	SPEAKERS:		
13	LUNCH (WED)	110	
14	BREAKFAST (THURS)	175	
14 15	BREAKEAST (FRI)	110	
16			
17		395	
18			
19	LUNCHEONS:		
20	THURSDAY (105×12)	1260	
21	FRIDAY (105×12)	1260	
22			
23		2520	
24			
25	HOSPITALITY:		
26	SUITE (3 DAYS)	375	
27	BARTENDER (RECEPTION)	80	
28	BOOZE (RECEPTION)	1150	
29	PUU PUU (RECEPTION)	350	
30	BOOZE (SUITE)	175	
31	SNACKS (SUITE)	100	
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	FINANCIAL SUMMARY - 1983	BUDGET	
1			
2			
3	EXPENSES:		
4			
5	SESSIONS	1460	
6	SPEAKERS	সিৎ	
7	LUNCHEONS	2520	
8	HOSPITALITY	2230	
9	BANQUET	3640	
a 10	ADMINISTRATIVE	4130	
10 11 11 10 11 10 11 10 11 10 11 10 11 10 11 11			
12	TOTAL	14375	
2 13			
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14 15			
16	RECEIPTS:		
18	REGISTRATION (ADVANCE 100 @ 40)	4000	
19	(ON SITE 20 @ 50)	1000	
20			
21	LUNCHEON (THURS 100@10)	1000	
22	(FRI 100@10)	1000	
23			
24	BANQUET (125@35)	4375	
25			
25	HOSPITALITY CONTRIBUTION	3000	
27	·		
28	TOTAL	14375	
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STUDY BY THE STAFF OF THE U.S. General Accounting Office

Exhibit 7

Issues Concerning The Department Of Defense's Global Positioning System As It Enters Production

The Department of Defense's Global Positioning System is a \$3.9 billion space-based navigation system designed to provide worldwide position information in 3 dimensions, together with velocity and time information, for a multiplicity of military and civil users.

As the system's space segment enters production on a multiyear contract basis, remaining technical and program risks could adversely affect the stability of spacecraft design, achievement of full operational capability by September 1988, and overall program costs. Also, the current multiyear procurement cost estimate associated with the space segment is uncertain because it is not based on a firm price proposal, and associated savings are overstated because they were not calculated using an acceptable method.

Efforts to offset the high cost of the Global Positioning System by phasing out existing navigational systems and by charging fees to non-Defense users are not likely to materialize as planned.



GAO/MASAD-83-9 JANUARY 26, 1983