

BOARD OF DIRECTORS

W. N. DEAN *President*
J. F. CULBERTSON . . . *Vice President*
L. F. FEHLNER *Secretary*
C. S. ANDREN *Treasurer*
J. ALEXANDER
B. AMBROSENO
D. A. CARTER
J. D. ILLGEN
V. L. JOHNSON
A. W. MARCHAL
E. L. McGANN
W. L. POLHEMUS
W. SCHORR
J. L. TOMS
J. P. VAN ETTEN



WILD GOOSE ASSOCIATION

19 October 1987

MINUTES OF THE 78th MEETING OF THE BOARD OF DIRECTORS

The 78th meeting of the Board of Directors was held as scheduled on 19 October 1987. See Exhibit 1.

Attendees:

Directors

Members

Visitors

W N Dean
J F Culbertson
L F FehIner
C S Andren
B Ambroseno
D A Carter
J D Illgen
V L Johnson
E L McGann
W Schorr
J L Toms
J P VanEtten

J M Beukers
R D Bronson
R L Frank
R H Miller
D C Scull

M P Beukers
D Johnson

Item 1- Call to Order

The meeting was called to order at 1905 19 October 1987. The number of Directors present met the requirements of a quorum.

Item 2- Secretary's Report

Two corrections to the Minutes of the 77th meeting of the Board were noted and discussed, namely, 1. Moroney had not been appointed to the Board after he joined as a WGA member on 15 July 1987 and therefore should not be listed as a Director, and, 2. incorrect text was appended as Exhibit 2. McGann moved to accept the 77th Minutes with the corrections noted. Toms seconded. Motion carried.

Fehlner described a number of difficulties associated with Associate Memberships, namely, the misconceptions that the WGA offers subscriptions, and stemming from this, that billing can be handled by a third party whereas the the WGA publications are expected to be sent direct to the member. This results in two addresses for such a member which cannot be accomadated at this time. Schorr moved to request the Secretary to advise such members or applicants that the WGA does not offer subscriptions nor deal through third parties. Culbertson seconded. Motion carried.

Item 3- Treasurer's Report

The Treasurer's Report is shown at Exhibit 2. Following a review and discussion of the report, the report was accepted as presented.

A discussion then ensued regarding the almost-zero bank balance which would have been shown if the bill for the printing of the 1986 Proceedings had already been paid. After much discussion it was agreed that Marchal should be contacted in an effort to obtain relief. Culbertson moved to request the 1986 Convention Chairman to explore why the price for the printing is so high, and to re-negotiate to a new lower price which reflects the low quality of the bound volumes.

Schorr then moved to request the Executive Committee to dispose of any issues associated with the fragile nature of our financial condition which may arise before the next Board meeting. Illgen seconded. Motion carried.

The financial condition of the WGA was then discussed at length and it was agreed to discuss an increase in dues under New Business.

Item 4- Standing Committee Reports

a. Conventions

1986- It was noted that the final account of the 1986 Convention has not yet been received.

1987- Chairman Toms reported the possibility of finishing in the red to the amount of \$2000-\$3000 if Proceedings cost \$5000 as per budget due to low manufacturer's support and fewer than expected attendees. Any problems that may develop with the 1987 proceedings was then handed over to the Executive Committee and the Convention Chairman for solution before the next Board meeting.

1988- Chairman Bronson reported that the 1988 Convention can be held in Portland OR 25 - 27 October at the Portland Hilton Downtown. Bob Miller will be Technical Chairman. Illgen moved to approve the date and place. Culbertson seconded. Motion carried.

b. Journal

No report.

c. Membership

Chairman Toms submitted his written report. See Exhibit 3.

d. Newsletter

Chairman Miller reported that the Newsletters have been coming out on time. He requested help in getting news items and indicated an interest in reviving the Goose Gazette for the format. A brief discussion among Board members indicated a consensus in favor of revival.

e. Nominations

No report.

f. Awards

Chairman Frank discussed his written report. See exhibit 4.

Item 5- Special Committees

a. Congressional

Chairman McGann discussed a letter (Exhibit 5) written by RTCA in favor of adding additional satellites to GPS to qualify the system for sole means use for approach of aircraft to airports. He then read a Megapulse letter pointing out fallacies in the RTCA letter. This letter is shown at Exhibit 6.

A discussion then ensued regarding the sole means potential of loran and the benefits derived from using both loran and GPS simultaneously. The consensus was that the Board should publicize the roles loran can play in support of sole means service, and the relatively low cost of so doing. The subject was then tabled for action by the next administration.

Item 6- Old Business

a. Tie Vote

Johnson presented a number of options for resolving the tie vote for the fourth place in the 1987 election of Directors. After much discussion, Carter stated a preference for being considered fifth in selection order and offered to withdraw his vote for himself if necessary. Culbertson then moved to define Moroney to be in fourth place and Carter in fifth. Toms seconded. Motion carried.

Item 7- New Business

a. John and Marilyn Beukers were recognized to present a plan for achieving more publicity, and to improve our financial position through the sale of advertising in the Newsletter. They were confident that substantial funds could be derived to support extensive promotional efforts on Ioran's behalf. See Exhibit 7. The consensus of the Board was in favor of this proposal. The matter was tabled for action by the next administration.

b. The question of the adequacy of dues was discussed. It was generally agreed that distribution of the proceedings to all members is beneficial to Ioran as well as members. However, due to the ever increasing cost of the proceedings, it appears that the WGA can not remain solvent without increased income. It was also agreed that the convention should not fund the entire production and distribution of the proceedings. Therefore, estimates of future costs of the proceedings and other substantial expenses were made which justify an increase in USA dues of 8 to 13 dollars and perhaps more for overseas members. Whereupon Andren moved to increase dues of non-overseas individual members to \$20.00 and initiation fee to \$5.00. McGann seconded. Motion carried by more than a 2/3 majority. The Board then requested the Executive Committee to develop changes to dues of the other classes of membership and obtain the approval of the Board before the next dues letter is mailed 1 December. It was agreed that the dues already paid by members for years beyond 1987 shall be honored.

Item 8- Next Meeting

The next meeting will be held Thursday, 22 October 1987, at the Holiday Inn Crowne Plaza, Rockville MD, at 0745.

Item 9- Adjournment

The meeting was adjourned on a motion by Culbertson at 2227, 19 October 1987.



Leo F. Fehlner
Secretary

cc: Member Attendees
J Alexander
A W Marchal
W L Polhemus

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WILD GOOSE ASSOCIATION

September 28, 1987

TO: WGA Directors and Committee Chairmen
FROM: WGA President
SUBJECT: 78th Meeting of the Board of Directors

The next meeting of the Board of Directors will be held Monday, 19 October, 1987, at 7:00 pm, at the Holiday Inn Crowne Plaza, Rockville MD. The exact location will be posted in the lobby.

AGENDA

- 1. Call to Order
- 2. Secretary's Report
- 3. Treasurer's Report
- 4. Standing Committee Reports
 - a. Conventions
 - 1. 1987 Convention Report Toms
 - 2. 1988 Convention Report Bronson
 - b. Journal Ambroseno
 - c. Membership Toms
 - d. Newsletter Miller
 - e. Congressional McGann
 - f. Awards Frank
- 5. Old Business
 - a. How to break a tie vote.
- 6. New Business
 - a. Publicity proposals
 - b. Other New Business
- 7. Establish next Meeting date

Exhibit 1

BOARD OF DIRECTORS

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WILD GOOSE ASSOCIATION

TREASURER'S REPORT
OCTOBER 19, 1987

Balance from July 14, 1987

\$8,699.46

TRANSACTIONS

RECEIPTS

Dues 438.00
Proceedings/Journals 325.00
Journal '86 Ads 975.00
Convention '86 Refund 3400.00
\$5138.00

\$13,837.46

EXPENDITURES

Treasurer's Expense 25.00
Secretary's Expense 358.84
Vice President's Expense 33.77
Stationery Expense 191.26
Newsletter Expense 1050.98
Convention '88 Advance 500.00
\$2159.85

\$11,677.61

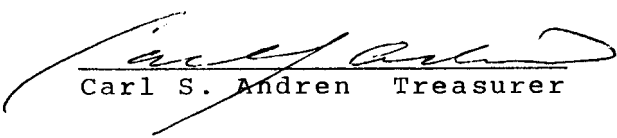
Accounts Payable 1986 Proceedings \$11,654.62
Accounts Receivable 1986 Journal Ads \$ 3,710.00

WGA Account Balance as of October 19, 1987

\$11,677.61

Submitted: October 19, 1987

Approved: Date Oct 19 1987
Board of Directors


Carl S. Andren Treasurer

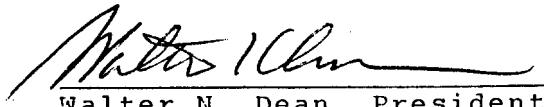

Walter N. Dean President

Exhibit 2

This exhibit
will be
distributed
later under
seperate cover.

Exhibit 3

Wild Goose Assn
Awards Committee Report
October 19, 1987

The awards for this year are summarized on the attached press release and copy of the Medal of Merit citation. This year's committee members were; Vernon Johnson and Alfred Manning. Much thanks for their efforts are given by copy of this report.

I call the attention of the Editor of the Radionavigation Journal to the fact that the Bylaws as printed in the 1985-86 edition do not reflect the changes made by the Board in 1985, which affect the eligibility for Service and Paper awards.

Dispite a notice in the Newsletter, no nominations for awards were received from the members; selections were made by the President and approved by the Board, for the President's Award. Other nominations were made by the Committee. Walt Dean sent me material for the President's Award citation. The paper award was made by searching for papers in many publications, but the best papers were finally narrowed down to the WGA Symposium Proceedings. No nominations were generated for Honorary Membership.

We have a residual supply of four brass Geese for next year's awards. Leo Fehlner retains the supply of blank Medals of Merit. I have a small supply of award certificates left, and I think Leo has more.

All committee business was conducted by mail and long distance telephone. An expense report is submitted separately.

Respectfully submitted,



Robert L. Frank, Chairman

Exhibit 4

Wild Goose Association

CITATION on the award of the MEDAL OF MERIT to

PAUL R. JOHANNESSEN

The Medal of Merit of the Wild Goose Association is awarded to Paul R. Johannessen, Sc.D., in recognition of his extensive contributions to the fostering of Loran, including his development of solid state high power and low power transmitters and his organization of a company to manufacture and market them.

In the 1960's, Dr. Johannessen did early work on solid state Loran-C transmitters at Sylvania Applied Research Laboratory. In 1970, he was instrumental in the formation of Megapulse, Incorporated, which was primarily devoted to development and manufacture of semiconductor/ saturable reactor transmitters, including the high power AN/FPN-64 now installed in almost half of the Loran-C stations in the continental U.S. and Canada and including portable "Accufix" and "Pulse-8" stations used world-wide for survey purposes. This equipment has contributed greatly to the reliability and stability of present-day Loran-C systems. Dr. Johannessen has published a number of papers and been awarded many patents on his work.

The Wild Goose Association believes these contributions have had a most favorable effect on the stature of the Loran-C system and its expanded use and applications on land, sea, and in the air, and for this we are forever grateful to you.

Awarded this 21st day of October, 1987.


Walter N. Dean, President.



Exhibit 4/cont

WILD GOOSE ASSOCIATION
PRESS RELEASE
October 21, 1987

The Wild Goose Association, a professional organization of individuals and organizations having a common interest in Loran (long range navigation) made awards at its sixteenth annual convention in Rockville, Maryland, today, as follows:

Medal of Merit Dr. Paul R. Johannessen, President of Megapulse, Inc., Bedford, MA., for extensive contributions to Loran, including development of high and low power solid state semiconductor/saturable reactor transmitters and organization of a company to manufacture and market them.

President's Award to Paul E. Burket, Administrator, Oregon Aeronautics Division and Chairman, National Association State Aviation Organizations, and John S. Kern, Deputy Associate Administrator for Aviation Standards, Federal Aviation Administration, Washington, DC, for establishment and support of FAA/NASAO Task Force which has been responsible for implementation of numerous Loran-C non-precision approaches.

Best Loran Paper to Robert B. Goddard and Frona B. Vicksell, Megapulse Inc., Bedford, MA., for: "Implementation and Performance of the TOT (time of transmission) Controlled French Loran Chain" published in WGA Proceedings of the 15th Annual Technical Symposium, 1986.

Service Awards to Walter N. Dean, ARNAV, Inc., Portland OR, for WGA president, Oct. 1985 to Oct, 1987; Frances W. Mooney, Mitre Corp. Cambridge, MA., for Chairman of 1986 WGA Technical Symposium, and A. William Marchal, Offshore Navigation Inc., New Orleans, LA, for Chairman of the 1986 WGA Convention.



Awards Committee, Robert L. Frank, Chairman.

30795 River Crossing,
Birmingham, MI, 48010
(tel: 313/645-9848)

Exhibit 4 (end)



RADIO TECHNICAL COMMISSION FOR AERONAUTICS

ONE McPHERSON SQUARE, 1425 K STREET, N.W., SUITE 500

50th
ANNIVERSARY
1985

WASHINGTON, D.C. 20005

TELEPHONE: (202) 682-0266

July 17, 1987

The Honorable Caspar W. Weinberger
Secretary of Defense
The Pentagon, Room 3E880
Washington, D. C. 20301-1000

Dear Mr. Secretary:

The comprehensive Global Positioning System (GPS) User Policy of May 22, 1985 announced that DoD will make GPS available to civil, commercial and other users on an international basis. Shortly thereafter, the Radio Technical Commission for Aeronautics (RTCA) initiated development of Minimum Aviation System Performance Standards for civil aircraft operation and use of GPS. This activity is being undertaken by Special Committee 159 composed of participants from government, industry and other parts of the aviation community.

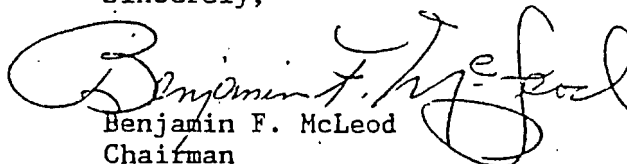
In its deliberations to date, the committee has identified critical coverage and integrity deficiencies in the current GPS satellite configuration that will prevent optimum application of GPS to civil aviation. The aviation community is concerned about the impact of these deficiencies on current DoD/DoT policy to use GPS in the national airspace. These deficiencies would preclude national and international use of GPS as a sole means navigation system. The RTCA believes the deficiencies could be eliminated with a 24 satellite constellation. Further, such a fully capable GPS will be a national and international resource which will benefit the United States for many years. The reasons are as follows:

1. The coverage of the currently planned GPS constellation (18 satellites + 3 active spares) has areas of substantially degraded performance lasting more than 20 minutes, which will regularly occur on a worldwide basis. This precludes the use of GPS as a sole-means aeronautical navigation system and restricts its use to a supplemental navigation aid. This would severely limit replacement of existing navigation systems as envisioned in the Federal Radionavigation Plan.
2. The currently planned GPS constellation will not have adequate integrity for civil use, i.e. the ability of the system to provide timely warning to users when GPS should not be used for navigation. Such protection is necessary and would have to be provided by an independent integrity system including ground monitoring and satellite relay to airborne users with the planned configuration. However, the much improved characteristics of a 24 satellite constellation would allow self-contained monitoring by GPS user equipment to meet the integrity needs under nearly all operating conditions.

It is believed that such an expanded constellation would not greatly influence current launch assets for the 28 Block II satellites. The RTCA is, however, aware that the orbital configuration for a 24 satellite constellation would differ from that currently planned.

For the reasons stated above, the RTCA strongly recommends a 24 satellite constellation be favorably considered at this time. We would be pleased to discuss this matter further with you or a member of your staff.

Sincerely,


Benjamin F. McLeod
Chairman

cc: The Honorable Elizabeth H. Dole
Secretary of Transportation

Bill Fuchs

Exhibit 5 (end)

October 14, 1987



Megapulse

8 Preston Ct
Bedford
Mass 01730-2380
(617) 275-2010
Telex 92-3358
MEG-BFRD
FAX (617) 275-9636

Radio Technical Commission for Aeronautics
One McPherson Square
1425 K Street, N.W.
Suite 500
Washington, DC 20005

Attention: Mr. Benjamin F. McLeod, Chairman

Reference: Your letter of 17 July 1987 to The Honorable Casper W. Weinberger

Dear Mr. McLeod:

As a member of RTCA, Megapulse hereby states that strong objection is taken to the RTCA support for an expanded GPS configuration for civilian use as set forth in the Referenced Letter. Before listing some of the reasons for this objection, a point of clarification regarding the statement in your letter "...the committee has identified critical coverage and integrity deficiencies..." is in order. Such statement appears to imply that the Special Committee 159 uncovered the stated deficiencies as a part of its work. This, of course, is not the case as such deficiencies, among others, were well known for many years in the GPS community although not often presented or discussed in public forums. One of the more important aspects of the excellent work of SC159 however, were the public discussions of these critical issues.

A few of the reasons for Megapulse's objection to the RTCA position and in fact in a broader sense to the "civilization of GPS" are as follows.

- A "sole means" navaid that provides system integrity "under nearly all operating conditions" - as quoted in your letter is not one which would appear to provide a sufficient level of confidence and safety for any critical operational application, particularly aviation.
- The issue of selective availability was not addressed in your comments and, if as if presently the case, such selective availability with its deliberate operational degradation will result in the fact that 5% of the time the civilian users will have no idea of their true position - a totally unacceptable situation. And, this by definition is the case for 18 or 24 or my number of satellites. With the selective availability constraint applied to civilian users, GPS is unacceptable as a sole means system for all significant civilian applications.

Exhibit 6

Mr. Benjamin F. McLeod

October 14, 1987

Page 2

- The costs of providing the additional satellites both in terms of implementation and operation were not addressed in your letter or in fact in any adequate or in depth manner in any of the SC159 public reports. With implementation costs estimated to be in excess of \$1.0 Billion and operating costs of \$250 Million per year for the added satellites alone, such expenditures are far in excess of what is presently expended for all civilian U.S. aid-to-navigation capability.
- The prospective operational costs to the U.S. civilian community, should it become dependent on GPS, after DOD ceases to have use for and provide funding for the full GPS configuration was also not addressed in your letter. These ongoing costs to the U.S. taxpayers and to the users are estimated to be in excess of \$1.0 Billion per year representing over twenty times the total present expenditure for all U.S. nav aids.
- There are no available studies indicating that a GPS configuration of either 18 or 24 satellites will provide any significant additional civilian operational capabilities in the U.S. beyond that which can now be or with relatively modest additions be provided by the existing complement of U.S. navigation systems.
- Considering the three above items and the fact that the cost recovery policies as defined by the Federal Radionavigation Plan dictate the recovery of costs using "existing mechanisms" and since the large majority of the "existing mechanisms" are those which are imposed on the aviation community, it would appear that RTCA is advocating a situation which will result in increased fees being paid by the community RTCA represents for a system which has not been shown to provide significant additional benefits.
- No consideration has been given to significant operational questions such as the legal and political liabilities brought about by the non-U.S. use of GPS particularly in light of the operational acceptability constraints imposed by the selective availability criteria and by user self checking integrity issues particularly with failed satellites.
- No consideration has been evidenced in your recommendation of the fact that GPS cannot be designated as an official system by international organizations such as IMO, ICAO and IALA since their by-laws currently preclude the recognition as an official international system any system that is operated by one country and particularly by the military of that country.
- The implication in the Referenced document that there would be minimal effect upon the GPS launch assets sidesteps the issue that GPS launch requirements currently occupy a disproportionately large proportion of our nations valuable near term satellite launch schedule.

Exhibit 6 (cont)

Mr. Benjamin F. McLeod
October 14, 1987
Page 3

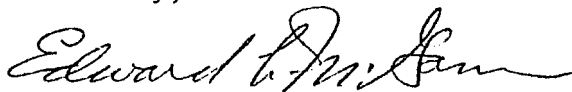
At a time when many facets of our U.S. space capabilities urgently need to be reestablished, it would appear that supporting a requirement that will necessitate even more launch manifest allocations so as to establish a system capability the necessity for which has not been critically examined is most inappropriate.

Finally and most emphatically your recommendation flies in the face of the procedures and criteria for recognizing a prospective U.S. sponsored navigation system as set forth in the Federal Radionavigation Plan and espoused by both the Secretaries of Defense and Transportation. If your recommendation were to be followed it would represent the defacto implementation by a budgetary end-run process of an officially recognized civilian navigation system without the conduct of any of the explicit evaluations required by the FRP as preconditions to such implementation. The above list of unanswered questions illustrate this point. Either this country has a policy with regard to the evaluation, selection and implementation of a proper mix of navigation systems or we do not. Such implementation of a "civilianized GPS" as recommended by RTCA without satisfaction of all the criteria of the FRP makes a mockery of that document, the procedures it sets forth and the Departments whose policies it represents.

Also, as a matter of politics and protocol, it would seem the referenced letter should have been directed to the Secretary of the Department of Transportation since the support addresses civilian issues.

Your attention to this matter is urgently requested. Our representatives are prepared to participate in any discussions regarding this urgent issue.

Sincerely,



Edward L. McGann
Executive Vice President

ELM/lhb

cc: The Honorable Caspar W. Weinberger
Secretary of Defense
The Secretary, Department of Transportation

Exhibit 6 (end)

October 19, 1987

Wild Goose Association Publicity

Strategy - Make WGA newsletter the vehicle for promotion and funds
10,000 @ \$10 = \$100,000.

1. List of Periodicals and Newsmedia:

- (a) Start with list.
- (b) Send letter to membership re:
 - What periodicals are read
 - What periodicals cover segment of industry.
 - Newsmedia

2. TV, Radio Stations, National Press, Technical Periodicals, General Magazines - create a list.

3. Information:

- Meeting Notices
- Call for Papers
- Press Releases
 - News Items
 - Contracts
 - Loran-C Schedules
 - Membership Drives

4. Advertising (Paid)

- Membership - decide on Media
- Meetings

5. Newsletter

- Quantity
- Block diagram
- Advertise - Free Copy & Membership Form leading to future member and paid subscription to newsletter.

- Membership Drive.
- Paid Circulation - By Subscription
- Include Membership Blanks
- Spruce up format

New literature release for each WGA newsletter that is generated to be sent to publications and media

6. Journal

- Establish format
- Headline Size
- Text Size
- Fonts to be used
- Member List by last name and by Company.

Exhibit 7

7. Technical Papers - Proceedings, have generated in ASCII file so can be manipulated to save space and to be standard in format so more professional look is achieved. Cut down on volume of paper used.

8. Fund Raisers:

Decals, Buttons, Engraved Glasses (nice for Holiday/Birthday giving), Badges, T-Shirts, promotional gimmicks - bumper stickers, etc.

9. Mailing Lists - Membership, Congressmen, News Editors

10. International Considerations - Notices to other "Sister" organizations such as ION - Canada. Other country users - Saudi, France, China, Europe, England.

11. User Groups

Air, Sea, and Land
NWS/WMS/Missile Ranges/ US Army/Met Agencies

12. GPS Coordination?

13. Coordination with Publicity Officers

USCA
FAA
Others?

14. Engage a clipping service for articles on Loran-C and WGA association. Generate a scrap book.

15. Establish a bulletin board for users on computer network.

Membership forms for the WGA.
Published material by WGA.
Description of WGA & charter.

Expenses

Mailing
Advertising
Newsletter
Journal
Proceedings
Phone

Exhibit 7 (cont)

