

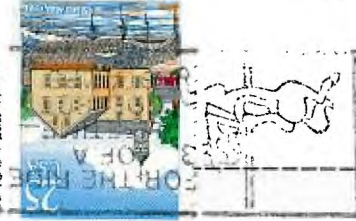
SEE IMM 224/244.41  
OR UNDER WRAPPERS  
MUST BE PLACED IN ENVELOPE  
ADDRESSED TO FOREIGN  
LETTERS AND PRINTED  
RETURN TO SENDER

IT'S AT 6 EVERGREEN  
LODNOVILLE, AT 7:00  
ON JULY 26TH, (4TH  
THIS TIME)



DON'T MONKEY AROUND, COME TO  
THE UPSTATE N.Y. T.I. MEETING

Rhode Island  
May 29, 1790



c/OBURCH/6 Evergreen Ct./Albany, N.Y. 12211

THE UPSTATE NEW YORK T.I. USER'S GROUP

\*\*\*MEETING\*\*\*AGENDA\*\*\*MEETING\*\*\*AGENDA\*\*\*MEETING\*\*\*AGENDA\*\*\*

FOR OUR JULY MEETING, THINK ABOUT THESE TOPICS:

HOW TO PLAN AND ORGANIZE THE TAPE, DISK, AND NEWSLETTERS LIBRARIES.

WHAT TO DO ABOUT THE BANK REQUIRING A \$500.00 BALANCE IN OUR CHECKING ACCOUNT.

HOW WE COULD GET IN TOUCH WITH OLD MEMBERS WHO HAVE DROPPED OUT. MAYBE THEY STILL HAVE THEIR T.I. EQUIPMENT AND WOULD BE INTERESTED IN COMING TO A MEETING IS ASKED!

DEMO RUNNING A MODEM AND CONNECTING TO A BULLETIN BOARD OR ANOTHER MEMBERS' SYSTEM.

IF ANYONE HAS A MODEM TO BRING AND TEST OR DEMO, PLEASE FEEL FREE TO DO SO! (WE HAVE 2 MEMBERS RUNNING BULLETIN BOARDS AND COMMUNICATING BY MODEM CAN BE FUN.) AGAIN, THIS MEETING, WE WILL TRY TO GO ON LINE WITH ANOTHER COMPUTER OR BULLETIN BOARD!

GENEOLOGY--ANYONE INTERESTED?? SOME MEMBERS ARE REALLY INTERESTED IN TRACING THEIR ANCESTORS. MR. FRAMENT HAS HAD SOME EXPERIENCE RESEARCHING AND BUILDING HIS FAMILIES' ANCESTRY TREE ON THE T.I.

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\*\*\*\*\* T.I. MEETING--THURSDAY, JULY 26TH \*\*\*\*\*  
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\*\*\*\*\*THANK YOU\*\*\*\*\*THANK YOU\*\*\*\*\*THANK YOU\*\*\*\*\*

THANKS TO:

ROSEMARY FOR HOSTING OUR LAST MEETING. THANKS FOR THE COFFEE AND GOODIES! IT WAS GOOD OF YOU TO HOST THE MEETING FOR THE SECOND TIME!

BOB KATT FOR RUNNING THE BULLETIN BOARD AND TRYING TO GET US CONNECTED DURING THE MEETING.

PHILLIS FOR RUNNING HER B.B. ALSO. THE MORE BB'S AND METHODS OF COMMUNICATION THAT WE HAVE, THE BETTER!

THE SARATOGA BOARD HAS SOMETHING NEW INSTALLED AND OPERATING. PHILLIS HAS HER HARD DISK RUNNING AND ADDITIONAL FEATURES ON THE BOARD. IF YOU CALL THE BB AT 583-2193 YOU WILL FIND OUT WHAT'S NEW IN NEWS AND THE BB FUNCTIONS.

BILL MARKOPOULOS FOR BRINGING OUR GROUP'S COMPUTER TO THE MEETING IN JUNE. WE USED IT FOR DEMOS AND BOB'S TEACHING SESSION ABOUT "BASICS".

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T.I. Meeting on Thursday, July 26th

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Our meeting will be held at Ruth Burch's house at 6 Evergreen Court, Loudonville. I'm located mid-way between Sand Creek Rd. and Albany-Shaker Road and mid-way between Wolf Road and Everett Road in the Town of Colonie. You will find a map enclosed. If you get lost, call 459-3674 for directions.

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Bob Burgess said he will teach again at this meeting. His last session was informative and well done. I began to realize how little programming I have been doing, and that the review was good for me.

Please come with some formatted disks, we should have some programs to share with you!!

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TREASURER'S REPORT.....TREASURER'S REPORT

7/90 CASH ON HAND....\$149.63 (AS OF THIS NEWSLETTER ISSUE POSTAGE AND COPYING HAS NOT BEEN DISPERSED FOR THE LAST FEW MEETINGS.) THIS SHOULD AMOUNT TO AN APPROXIMATE \$10.00 CHARGE PER MEETING NEWSLETTER.

IF YOU DON'T COME I'LL BE VERY SAD!

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AGAIN, IF ANYONE HAS SOME TAPES TO BRING IN FOR A DEMO, PLEASE DO SO. WE SHOULD SHOW SOME TAPE AS WELL AS DISK PROGRAMS AT OUR MEETINGS. THOSE WHO CHOOSE COULD CONVERT THEM TO DISK. FROM OTHER PEOPLE, LIKE JACK SUGHRUE, I UNDERSTAND THERE ARE SOME EXCELLENT PROGRAMS ON CASSETTE AND MANY ARE AVAILABLE FROM JIM PETERSON.



# AVIATION PROGRAM

AVIATION2 by A MCLELLAN

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100 REM *****
110 REM * AVIATION PROGRAM *
120 REM * BY A. MCLELLAN *
130 REM *16 ROBERT ALLEN DR*
140 REM * HALIFAX N.S. *
150 REM * CANADA B3H 2V7 *
160 REM * 26 JAN 90 *
170 REM *****
180 CALL CLEAR :: C=PI/180 :: CALL SCREEN(12):: DISPLAY AT(2,6):"Aviation Progra
m" :: CALL HCHAR(3,8,45,16)
181 DISPLAY AT(4,13):"by" :: DISPLAY AT(6,9):"A. McLellan"
185 DISPLAY AT(8,2):" This program performs all computations using spherical tri
gonometry and therefore is completely accurate."
190 DISPLAY AT(17,6):"1 - Flight Plan" :: DISPLAY AT(19,6):"2 - Astro Program" :
: DISPLAY AT(23,3):"Select Program 1 or 2:1"
200 ACCEPT AT(23,25)SIZE(-1)BEEP VALIDATE("12"):K :: IF K=2 THEN 710 :: CALL CLE
AR :: CALL SCREEN(4)
210 PRINT " Flight Plan Program" :: PRINT " -----" :: PRIN
T " This program gives track,
220 PRINT " heading, distance, ground " :: PRINT " speed, time, and fuel for "
:: PRINT " each of the legs, and the "
230 PRINT " total time and total fuel " :: PRINT " for the entire flight, of "
:: PRINT " as many as ten geographic "
235 PRINT " positions (including both " :: PRINT " departure and destination "
:: PRINT " points). "
236 PRINT " Also gives latitude where "
240 PRINT " tracks cross intermediate " :: PRINT " longitude. Positions must "
:: PRINT " be entered in degrees and "
245 PRINT " minutes of latitude and " :: PRINT " longitude. All entries to "
:: PRINT " be complete, with leading "
250 PRINT " zeros if required to fill " :: PRINT " all cues." :: GOSUB 900
260 CALL CLEAR :: DISPLAY AT(12,3):"Enter Number of Positions (Max 10):
" :: ACCEPT AT(14,18)BEEP VALIDATE(DIGIT):X
270 FOR I=1 TO X
280 CALL CLEAR :: DISPLAY AT(8,6):"Enter Position";I :: CALL HCHAR(9,8,45,16)::
DISPLAY AT(11,1):"LAT: 00 Deg 00 Min N N/S"
290 DISPLAY AT(13,1):"LONG: 000 Deg 00 Min W E/W" :: ACCEPT AT(11,8)SIZE(-2)BEEP
VALIDATE(DIGIT):LTD(I)
300 ACCEPT AT(11,15)SIZE(-2)VALIDATE(DIGIT):LTM(I):: ACCEPT AT(11,22)SIZE(-1)VAL
IDATE("NS"):LTI$
310 ACCEPT AT(13,7)SIZE(-3)VALIDATE(DIGIT):LGD(I):: ACCEPT AT(13,15)SIZE(-2)VALI
DATE(DIGIT):LGM(I):: ACCEPT AT(13,22)SIZE(-1)VALIDATE("EW"):LGI$
320 GOTO B 510
330 NEXT I
340 CALL CLEAR :: DISPLAY AT(10,1):"Enter TAS (Knots):" :: DISPLAY AT(12,1):"Ent
er Fuel (Lbs/Hr):" :: ACCEPT AT(10,22)BEEP VALIDATE(DIGIT):TAS
350 ACCEPT AT(12,22)BEEP VALIDATE(DIGIT):FF
360 FOR I=1 TO X-1
370 CALL CLEAR :: DISPLAY AT(14,1):"Enter Leg";I;"Wind: 000/000" :: ACCEPT AT(14
,19)SIZE(-3)BEEP VALIDATE(DIGIT):WD(I)
380 ACCEPT AT(14,23)SIZE(-3)BEEP VALIDATE(DIGIT):WS(I)
390 NEXT I
400 GOSUB 550
410 CALL CLEAR :: TT=0 :: FOR I=1 TO X-1 :: TT=TT+T(I):: NEXT I :: TF=TT*FF
420 FOR I=1 TO X-1
430 PRINT "Leg";I :: PRINT USING "Dist:#####nm":D(I);:: PRINT USING " TR:###":T
R(I);:: PRINT USING " TH:###":HDG(I)
440 PRINT USING "G/S: ###K":GS(I);:: PRINT USING " Time:## Hr":INT(T(I));:: PRI
NT USING " ## Min":(T(I)-INT(T(I)))*60
450 PRINT USING "Fuel:##### Lbs":F(I):: PRINT
460 IF I=4 THEN GOSUB 900
470 NEXT I
480 PRINT :: PRINT USING " Total Time:## Hrs":INT(TT);:: PRINT USING " ## Mins"
:(TT-INT(TT))*60 :: PRINT
490 PRINT USING " Total Fuel:##### Lbs":TF :: PRINT :: INPUT " Find LAT where T
R crosses intermediate LONG (Y/N)?:T$
500 IF T$="Y" THEN 630 :: IF T$="y" THEN 630
505 PRINT :: INPUT "Return to Main Menu (Y/N)?:N$ :: IF N$="Y" OR N$="y" THEN 1
00 :: END
510 REM CONVERT TO RADIANS AND HEMISPHERIC SIGN CONVENTIONS
520 LT(I)=LTD(I)+LTM(I)/60 :: IF LTI$="N" THEN 530 :: LT(I)=-LT(I)
530 RLT(I)=LT(I)*C :: LG(I)=LGD(I)+LGM(I)/60 :: IF LGI$="W" THEN 540 :: LG(I)=-L
G(I)
540 RLG(I)=LG(I)*C :: RETURN
550 REM COMPUTE TR, DIST, G/S, TIME, FUEL
560 FOR I=1 TO X-1
570 A(I)=SIN(RLT(I))*SIN(RLT(I+1))+COS(RLT(I))*COS(RLT(I+1))*COS(RLG(I)-RLG(I+1)
):: D(I)=60*(-ATN(A(I)/SQR(ABS(-A(I)*A(I)+1)))+PI/2)/C
580 B(I)=(SIN(RLT(I+1))-(SIN(RLT(I))*COS(C*D(I)/60)))/(COS(RLT(I))*SIN(C*D(I)/60
)):: TR(I)=(-ATN(B(I)/SQR(ABS(-B(I)*B(I)+1)))+PI/2)/C
590 IF SIN(RLG(I)-RLG(I+1))>0 THEN 600 :: TR(I)=360-TR(I)

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600 RWD(I)=WD(I)*C :: E(I)=WS(I)*SIN(RWD(I)-(TR(I)*C))/TAS :: HDG(I)=TR(I)+(ATN(
E(I)/SQR(1-E(I)*E(I))))/C
610 GS(I)=TAS*COS(HDG(I)*C-TR(I)*C)-WS(I)*COS(RWD(I)-TR(I)*C):: T(I)=D(I)/GS(I):
: F(I)=T(I)*FF
620 NEXT I :: RETURN
630 REM COMPUTE LAT TR CROSSES INT LONG
640 CALL CLEAR :: DISPLAY AT(10,3):"Latitude At Which Track" :: DISPLAY AT(12,3)
:"Crosses Given Longitude" :: CALL HCHAR(13,5,45,23)
650 DISPLAY AT(16,1):"LONG: 000 Deg W E/W" :: DISPLAY AT(18,1):"LONG bet
ween Position &" :: ACCEPT AT(16,7)SIZE(-3)BEEP VALIDATE(DIGIT):MDL
660 ACCEPT AT(16,15)SIZE(-2)VALIDATE(DIGIT):MML :: ACCEPT AT(16,23)SIZE(-1)VALID
ATE("EW"):M$ :: ACCEPT AT(18,23)BEEP SIZE(-1)VALIDATE(DIGIT):P
670 ACCEPT AT(18,27)SIZE(-1)VALIDATE(DIGIT):Q :: RML=(MDL+MML/60)*C :: IF M$="W"
THEN 680 :: RML=-RML
680 RMLT=ATN((TAN(RLT(P))*SIN(RML-RLG(Q))-TAN(RLT(Q))*SIN(RML-RLG(P)))/SIN(RLG(P)
)-RLG(Q))/C :: IF SGN(RMLT)=-1 THEN T$="S" ELSE T$="N"
690 RMLT=ABS(RMLT):: PRINT USING " TR Crosses LONG at ##":INT(RMLT):: PRINT USI
NG " ##":(RMLT-INT(RMLT))*60:: PRINT T$ :: PRINT
700 INPUT " Other Int Points (Y/N)?:":N$ :: IF N$="Y" THEN 630 :: IF N$="y" THEN
710 PRINT :: INPUT "Return to Main Menu (Y/N)?:":N$ :: IF N$="Y" OR N$="y" THEN 1
00 :: END
710 REM ASTRO PROGRAM
720 CALL CLEAR :: CALL SCREEN(10):: DISPLAY AT(12,7):"Astro Program" :: CALL HCH
AR(13,9,45,13):: PRINT :: PRINT
730 PRINT "Gives computed Altitude (HC) & Azimuth (ZN) of celestialbody, given a
ssumed position of an observer and Greenwich"
740 PRINT "Hr Angle (GHA) & Declination(DEC) of the body." :: GOSUB 900
750 CALL CLEAR :: DISPLAY AT(5,3):"Enter Time: 0000Z" :: ACCEPT AT(5,15)SIZE(-4)
BEEP VALIDATE(DIGIT):TIME
760 DISPLAY AT(7,3):"Enter Assumed Position:" :: DISPLAY AT(9,1):"LAT : 00 Deg
00 Min N N/S" :: DISPLAY AT(11,1):"LONG: 000 Deg 00 Min W E/W"
770 ACCEPT AT(9,8)SIZE(-2)BEEP VALIDATE(DIGIT):ALTD :: ACCEPT AT(9,15)SIZE(-2)VA
LIDATE(DIGIT):ALTM
780 ACCEPT AT(9,22)SIZE(-1)VALIDATE("NS"):ALT$ :: ACCEPT AT(11,7)SIZE(-3)VALIDAT
E(DIGIT):ALGD :: ACCEPT AT(11,15)SIZE(-2)VALIDATE(DIGIT):ALGM
790 ACCEPT AT(11,22)SIZE(-1)VALIDATE("EW"):ALG$ :: DISPLAY AT(14,3):"Enter:" ::
DISPLAY AT(16,1):"GHA: 000 Deg 00 Min"
800 DISPLAY AT(18,1):"DEC: 000 Deg 00 Min N N/S"
810 ACCEPT AT(16,6)SIZE(-3)BEEP VALIDATE(DIGIT):GHAD :: ACCEPT AT(16,14)SIZE(-2)
VALIDATE(DIGIT):GHAM
820 ACCEPT AT(18,7)SIZE(-2)BEEP VALIDATE(DIGIT):DECD :: ACCEPT AT(18,14)SIZE(-2)
VALIDATE(DIGIT):DECM
830 ACCEPT AT(18,21)SIZE(-1)VALIDATE("NS"):R$ :: RALT=(ALTD+ALTM/60)*C :: IF ALT
$="N" THEN 840 :: RALT=-RALT
840 RALG=(ALGD+ALGM/60)*C :: IF ALG$="W" THEN 850 :: RALG=-RALG
850 RGHA=(GHAD+GHAM/60)*C :: RDEC=(DECD+DECM/60)*C :: IF R$="N" THEN 860 :: R
DEC=-RDEC
860 G=SIN(RALT)*SIN(RDEC)+COS(RALT)*COS(RDEC)*COS(RALG-RGHA):: RHCD=ATN(G/SQR(1-
G*G))
870 J=(SIN(RDEC)-(SIN(RALT)*SIN(RHCD)))/(COS(RHCD)*COS(RALT)):: ZND=(-ATN(J/SQR(
1-J*J))+PI/2)/C :: IF SIN(RALG-RGHA)>=0 THEN 880
875 ZND=360-ZND
880 HCD=RHCD/C :: PRINT USING " HC = ## Deg":INT(HCD):: PRINT USING " ## Mi
n":(HCD-INT(HCD))*60 :: PRINT
890 PRINT USING " ZN = ### Degrees":ZND :: PRINT :: INPUT " Calculate Anoth
er (Y/N)?:":S$ :: IF S$="Y" THEN 750 :: IF S$="y" THEN 750
895 PRINT :: INPUT "Return to Main Menu (Y/N)?:":S$ :: IF S$="Y" THEN 100 :: IF S
$="y" THEN 100 :: END
900 PRINT :: PRINT " (Press ENTER to continue)"
910 CALL KEY(0,KEY,STATUS):: IF KEY<>13 OR STATUS<>1 THEN 910 :: RETURN

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Allan McLellan retired after 37 years in the RCAF and Canadian Forces. He was an Air Navigator, flying in the C119 North Star, Dakota, Argus and Aurora aircraft. He spent several years as a trainer of navigators and was Base Commander of CFB Greenwood and the Commander of Maritime Air Group during a long and distinguished career. He now lives in the City of Halifax and we are priveleged to have him as a member of TINS. This is the first of (we hope) many contributions to our newsletter