

**U.S. Dept. of Commerce / NMAO / NOAA / Aircraft Operations Center**

Fit ID: <i>040922I</i>	From: <i>KMCF</i>	To: <i>KVQA</i>
Fit. No: <i>04-068</i>	Blk In: <i>0009Z</i>	Time On: <i>2358Z</i>
ETD: <i>1500Z</i>	Blk Out: <i>1501Z</i>	Time Off: <i>1520Z</i>
ETE: <i>9+00</i>	Blk Time: <i>9+08 9.1 Hrs</i>	Fit Time: <i>8+38 8.6 Hrs</i>
Sponsoring Org: <i>NOAA HRD</i>	Program: <i>Hurr 2004</i>	Purpose: <i>H. JEANNE</i>

**AOC Flight Crew**

Aircraft Commander: <i>SILAH, M /</i>	Data System: <i>LYNCH, T /</i>
Co-Pilot: <i>STRONG T / CHDY, B /</i>	AVAPS: <i>SMITH, J /</i>
Navigator: <i>GALLAGHER, T /</i>	System Eng:
Flight Eng: <i>BAST, G / KUPPER, J /</i>	A A: <i>MC FADDEN, J /</i>
Flight Director: <i>SHEPHERD, T /</i>	A A:
Avionics: <i>SANS SOUCI, D /</i>	Crew Chief:

**Participating Scientists / Visitors**

Name (Last, First)	Activity on Aircraft	Affiliation
<i>ROGERS, R /</i>		
<i>ULHORN, E /</i>		
<i>LEIGHTON, P /</i>		
<i>LASWELL, J /</i>		
<i>WALSH, E /</i>		
<i>FRENCH, J /</i>		
<i>Lichenor, T /</i>		

**Remarks (Storm Name, Mission ID, Recco Times, Fix Times)**

Storm Name: *JEANNE*

Mission ID: *NOAA3 WXWXA JEANNE*

<i>1-1842</i>	<u>Recco Times</u>	<u>Fix #</u>	<u>Fix Time</u>
<i>2-1959</i>	<i>1-1557</i>		
<i>3-2116</i>	<i>2-1658</i>		

(See reverse for additional remarks)

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Flight ID: 040922I      Time Off: 1520      Time On: 2358

	A/C - Takeoff	Wx Station - Takeoff	A/C - Land	Wx Station - Land
Pressure	<u>1017.3</u>	<u>1017.9</u> <u>30.86</u>	<u>1019.4</u>	<u>1020.3</u> <u>30.13</u>

	Number	Data Disposition / Date / Quality
Flight Level Tapes	<u>2</u>	
Radar Tapes	<u>1</u>	
Cloud Physics Tapes / CDs	<u>0</u>	
Video Tapes	<u>4</u>	
Dropsondes	<u>10</u>	Good: <u>10</u> Bad:
AXBT	<u>6</u>	
AXCP		
AXCTD		

**Remarks:**

- TT #3 installed

- 1806



**NOAA P-3 N43RF  
CBLAST 2004  
FLIGHT #13**

**Flight ID: I040922**

<u>Sensor or system</u>	<u>Number or Name</u>
INE.....	2
Accelerometer	2
Temperature Probe.....	1
Dew Point Probe	2
Altimeter (for vertical wind).....	RA-159
Static Pressure	Rosemount (fuselage)
Dynamic Pressure.....	Rosemount (fuselage)
Time Source	Micro 99
Constants File.....	CO3043.con

Local Met. Data: Not copied at takeoff

Take off: 1520Z  
Land: 2358Z

The RA-232 was substituted for the RA-159 during take off and landing due to spiking (T.O. 151701-152049; Land 235701-000100).

The RA-159 had spikes that were removed and patched (180322-180326; 180435-180440; 180549-180553; 180703-180707).

The Johnson-Williams liquid water sensor was inoperative for the entire flight.

There were data gaps noted: 151741-151752; 164441-164443; 170221-170234; 175521-175526; 224321-224330.

There were times during heavy precipitation events (e.g. eye wall penetrations) when the dew point exceeded ambient temperature yielding a RH of greater than 100%. This is probably due to a wet bulb effect on the total temperature probe and/or the dew pointer over heating while trying to remove excess moisture. In these instances, no corrections were attempted.

The aircraft INE positions were re-navigated with respect to GPS.

SPECIAL NOTE: Locations 80, 81, and 82 of record 5 in the standard data contain vertical ground speed, vertical air speed, and vertical wind speed computed using Dr. Dave Jorgensen's vertical wind algorithm. It is recommended that these values be used for vertical wind analysis.

	<b>Take off</b>	<b>Land</b>
Aircraft Static Pressure	1017.3 mb	1019.4 mb
Corrected Tower Pressure	1017.9 mb	1020.3 mb

Flight Director: Tom Shepherd  
813-828-3310 x3053



Mission CBLAST JEANNE Fit ID 040922i

SED Crew Lynch, Sans Soucci, Smith

Pre-Flight 13:15 Take-Off 15:20 Landing 23:57

System		Pre-Flight		In-Flight			Post-Flight			
NAV	GPS	FM: 1					LAT	Lon	GS	RE
	INE #1	Time On: 13:15	Aligned to: 8	OK			-21.1	411.4	3	22
	INE #2	Time On: 13:15	Aligned to: 8	OK			-6.7	+5.3	2	8
	Diff GPS			TL						
RADAR	MARS Data	Start	Stop	Ready?	HRD?		# DATs ? 1 Given To: PL			
	MARS	15:26	21:57	TL	Y/N					
	MARS Data / Tape Status				LFRec	TARec	EOFs			
	MARS LU8	Clean		TL						
	MARS LU9	Clean		TL						
PMS	RADAR R/T SN	Tail 202/102 LF 102		Y	Mod Switches	ON	Mod Switches OFF			
	Nose			OK			Power	OFF		
	FSSP Ref VDC:	Covers	OFF				Covers	ON		
	Cloud Mono	Covers	OFF				Covers	ON		
SEAS	CIP	Covers	OFF				Covers	ON		
	SEA Data DAT	Start	Stop	Ready?	#DATS	Errors	Disk Write	Given To: -		
	DAT	Clean?		Y			Y / N			
TEMP		Cal High	Cal Low				Cal High	Cal Low		
	Temp #1	30.4	-30.5	Y			30.7	-30.2		
	Temp #2			Y			Power	OFF		
	Temp #3			TL			Power	OFF		
PRESES	Dewpoint	#1 #2 #3 (DL)		TL			Power	OFF		
	Attack / Slip Angle	AP AP BP DP		TL			Power	OFF		
	Differential	P01 P02 P03 P04		TL			Power	OFF		
FLTLVL	Absolute	P01 P02 P03		TL			Power	OFF		
	Apn-159 SN:	66-02A		TL			Power	OFF		
	Apn-232 SN:	1761		TL			Power	OFF		
	Liquid Water	J&W	King	TL	28V WOW: ON?		Power	OFF		
RAMS	Radiometer	CO2 SST		TL	28V WOW: ON?		Power	OFF		
	RAMS Data	Start	Stop	Ready?	Errors 8:	Errors 9:	# DATs ? 2 Given To: TS			
	CPU: A (B)	15:00	00:09	TL	0	0	Power	OFF		
	RAMS Data / Tape Status				Slow Rec	Fast Rec	Disk Records: 3295			
	RAMS LU8	Clean		TL	3295	32950				
MISC	RAMS LU9	Clean		TL	3295	32950				
	Flight Director Laptop			TL			Power	OFF		
	Network			HT						
	ASDL Mission #:	WAWA Name: Jeanne		Y	Freq: 30	Block: 10	Power	OFF		
	C.I. Printer	Start	Stop	Ready?	Paper Bin Stores		Given To:			
USER	PRATE: 10	14:59	00:09	TL	0% 25% 50% 75% 100%	Power	OFF			
	Exterior Walk Around	Plugs	Covers	JAS			Plugs	Covers		
	SATCOM	W/S	Inmarsat	GlobalStar			Power	OFF		
	AXBT Internal	# Loaded:	0				# Launched:	-		
SC	AXBT External	# Loaded:	6	OK	28V WOW		# Launched:	6		
	AVAPS 53	# On Board:		JS			# Dropped:	10		
	Video Cameras	Start	Stop	Ready?	Cameras	Mode	# Tapes ? 4 Given To: PL			
	VHS VHS	14:59	00:12	Y	01000	2 / 0	Lens Cap ?:	Y		
SC	FCU	-B-C-D-		Y			UPS	OFF		
	SFMR HRD AOC			TL						
	HRD Work Station						Accelerometers			
	NASA SRA			EW			#1 (2 G):	8205		
	ARL BAT Probe, SST & IRGA			JFB			#2 (2.5 G):	10037		
SC	UW PDA			TL			#3 (3 G):	5967		
	Scripps MASS, Laser Alt, IR Cam & Sono			TL			#4 (3.5 G):	2892		
	RSMAS Licor			TL						

Please Note any Discrepancies

Item #	Zulu Time	Problem Description	Initials	Status
1	Pre	Swapped down & right <del>VCR</del> NTSC signal into UCRS	TL	
2	Pre	BAT probe pressure signal in-cp from dome	JF	
3	17:04	1AM SRQ - Data Data Run on Ch 19	TZ	
4	18:00	Selected QSF12 Q=40 KHz Ac 0-20 KHz	TL	
5	18:10	5.31 on AOC SFR getting clipped by 42 <sup>is</sup> 4F 43@ 5K 42@ 7K	TL	
6	20:57	Interfere on 4.74 G ADC when @ 1200 De-select it	TL	
7	22:00	Acomx error - 18 (command error) ASDL Port 1 (RAMS) goes down - ADAPS to reset it FLY - EAB1 or -LH show up	TL	
8	22:30	On Ferry to Jax Dew 42 at -47 (20 deg too cool)	TL	
9		-NAV STA RADIOMETRIC WINDOW DE-LAMINATING -TOL bottom mirror has stains - won't clear Left wingtip needs pro seal	DSF	
10				
*	-	Get screw grab for 4eff. - Also 8-32 screws		
	-	Need Ultra Jet spray		

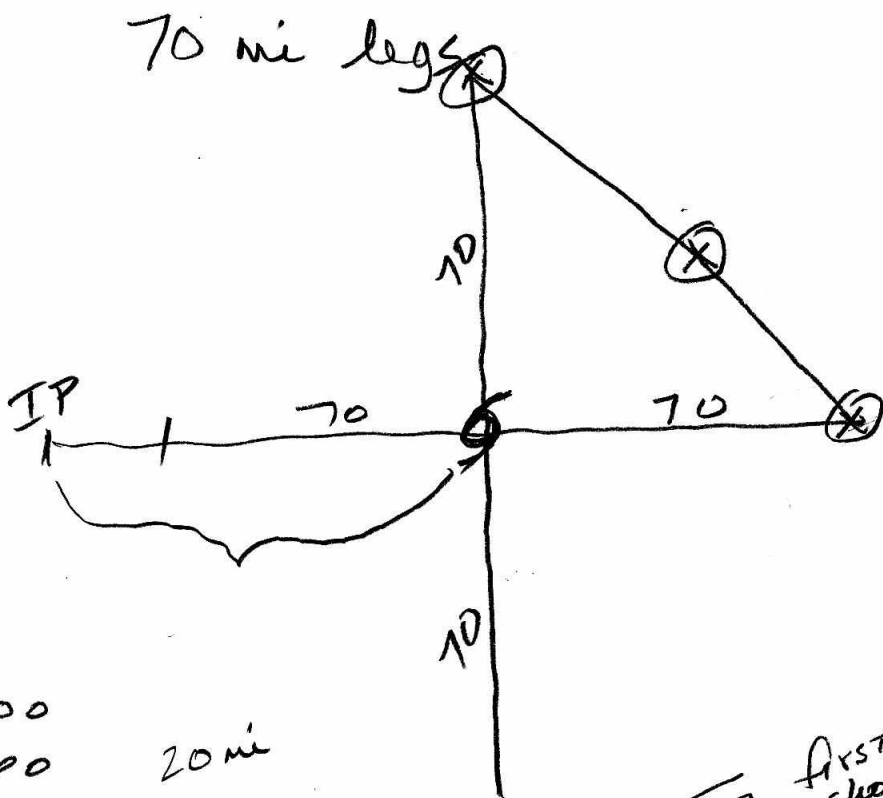
EA31

DATE	SCHEDULED RX TIME	AIRCRAFT NUMBER	FLIGHT DIRECTOR
9/22/04	NA	N 43	SHEPHERD
WX MISSION IDENTIFIER			OB NUMBER
NDAAB WxWKA JEANNE			6
VORTEX DATA MESSAGE			
A	221184Z	DATE and TIME of FIX	
B	26 DEG 08 MIN N S	LATITUDE of FIX	
	68 DEG 53 MIN W E	LONGITUDE of FIX	
C	850 MB 1123 M	MINIMUM HEIGHT of STANDARD LEVEL	
D	NA KT	ESTIMATE of MAXIMUM SURFACE WIND OBSERVED	
E	NA DEG NM	BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND	
F	001 DEG 95 KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER	
G	268 DEG 21 NM	BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND	
H	967 MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.	
I	19 C 11801 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE	
J	20 C 11817 M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE	
K	18 C / NA C	DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE	
L	OPEN S	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.	
M	C 45	EYE SHAPE/ORIENTATION/DIAMETER: Code eye shape as: C - Circular; CO - Concentric; E - Elliptical. Transmit orientation of the major axis in tens of degrees, i.e., 01-010 to 190; 17-170 to 350. Transmit diameter in nautical miles. Examples: C8= Circular eye 8 miles in diameter. E09/15/5=Elliptical eye, major axis 090-270, length of major axis 15 NM, length of minor axis 5 NM. CO8-14=Concentric eye, diameter inner eye 8 NM, outer eye 14 NM.	
N	12345/8	FIX DETERMINED BY / FIX LEVEL. FIX DETERMINED BY: 1-Penetration; 2-Radar; 3-Wind; 4-Pressure; 5-Temperature. FIX LEVEL (Indicate surface center if visible; indicate both surface and flight level centers ONLY when same): 0-Surface; 1-1500 ft; 9-925mb; 8-850mb; 7-700mb; 5-500mb; 4-400mb; 3-300mb; 2-200mb; NA-Other	
O	11 / NM	NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY	
P	REMARKS		
	MAX FL WIND 95 KT W QUAD 1836 Z SLP FROM Dropsonde		

INSTRUCTIONS: Items A thru G (and H when extrapolated) are transmitted from the aircraft immediately following the fix. The remainder of the message is transmitted as soon as available for scheduled fixes and at the Flight Director's discretion for unscheduled (intermediate) fixes.

IP DUE WEST

100 mi west of 26.3 68.8



42 Stopped descent  
0's begin/end  
0 only @ 5mi

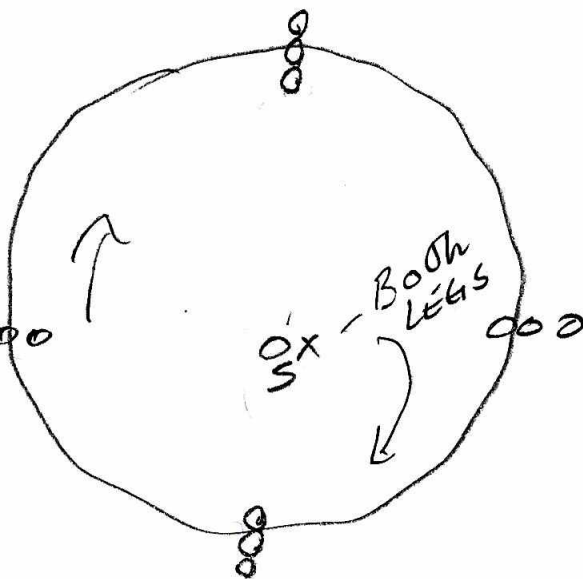
⊗ CH12  
N43

43  
—  
14  
16

2400  
1200 20 mi  
900  
600  
400

≡ First choice

IF shorter (12-15 mi)  
Do upward/downward  
at each altitude



MIKE  
TOM  
BARRY  
Grey  
JOE  
TUN  
ME  
Lyndell  
Smith  
Sons Sonu  
McFARREN

0-42  
X-BT  
S-Sandburg

Rogers LASWELL  
ULHORN WALSH  
LEIGHTON Lichendorf  
French



ID'S

NOAA2 WXWXA JEANNE

NOAA3 WXWXA JEANNE

TEAL

NONE

22/1800 26.3 68.8 80KT

KVQQ

KJAX

MAX FL 82KT W Quad

0417Z

3000 1-□ 2-0 <sup>2 min legs</sup> 570 rate turn

FLY OVER 1200 ft.





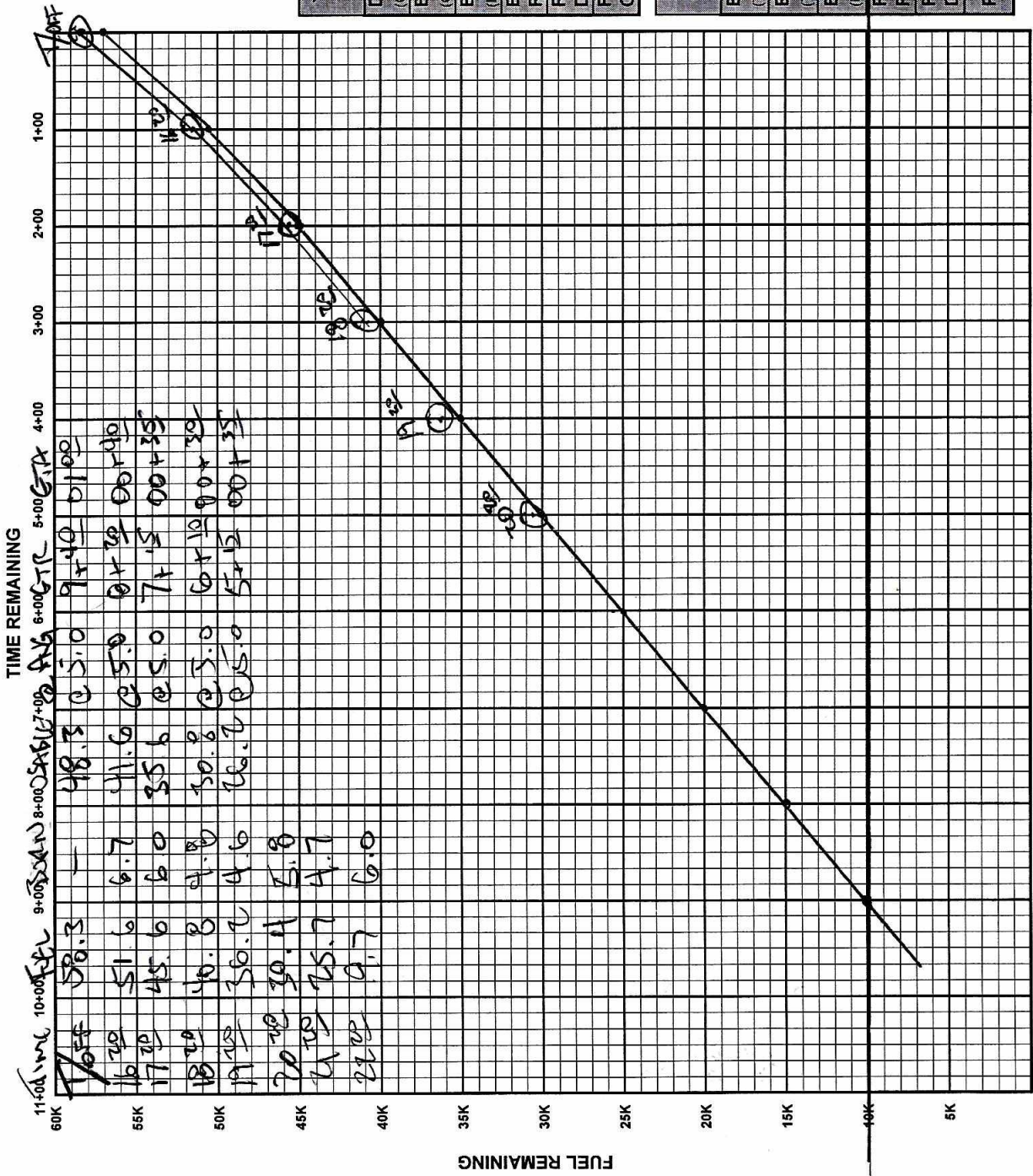


120  
100  
110

135.07

200/077 008-45.986  
25 28.836

RANGE CONTROL GRAPH



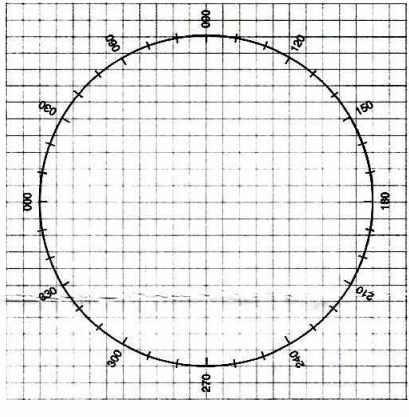
ENROUTE FUEL	
ENROUTE TIME	9+00
ENROUTE FUEL (6K-5K/4.5K RULE)	47.0
RESERVE AT DESTINATION	10.0
REQUIRED RAMP	57.0
ACTUAL RAMP FUEL	58.3

TACTICAL (OFFSTA TO DESTINATION)	
DISTANCE (OFFSTA TO DEST)	
ENROUTE TIME (OFFSTA TO DEST)	
BURN RATE (LBS/HR)	4500
ENROUTE FUEL REQUIRED	5500
RESERVE AT DESTINATION	
FUEL AT OFFSTA	

POINT OF SAFE RETURN	
ETP DISTANCE (TO DEPARTURE)	
ENROUTE TIME (TO DEPARTURE)	
BURN RATE (LBS/HR)	4500
FUEL REQUIRED	5500
RESERVE AT DEPARTURE	
PSR FUEL	

CEX - TRUE BEARING METHOD			CEX SIGHT	
COMPASS TYPE	INS1	INS2	GMT	
MCH (READING)			GHA	
- MTH (SEXTANT)			CORR	
CE			GHA	
- VAR			LONG + W	
DEV			EXACT LHA	
			LAT	
			BODY	
			DEC	
			HC/D	
			CORR	
			HC	
			Z	
			ZN	

CEX - ERB METHOD		
COMPASS TYPE	INS1	INS2
MERB (DIAL 000)		
+ ZN		
= MTH		
MCH (READING)		
CE		
- VAR		
= DEV		



PRESS ALT		200	250	300	350
10,000	1.0	1.0	1.0	.99	.98
20,000	.99	.98	.97	.97	.97
30,000	.97	.96	.95	.94	.94
40,000	.96	.94	.92	.90	.90

WIND FACTOR		
WINDSPEED	HEADWIND	TAILWIND
10	1.03	.97
20	1.06	.94
30	1.10	.92
40	1.14	.89
50	1.18	.87
60	1.22	.85

TRUE AIRSPEED CROSS-CHECK						
TIME	IAS	PRESS ALT	"F" FACTOR	EAS	OAT	ITAS
5591	212	15000	1.01	210	+11	271
						264

DISTANCE REMAINING

ETP = .5(TOTAL DISTANCE x OUTBOUND WIND FACTOR)