

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

Flt ID: 040913I	From: KMCF	To: KMCF
Flt. No: 0464	Blk In: 0209Z	Time On: 0159Z
ETD: 2000Z	Blk Out: 1949Z	Time Off: 2001Z
ETE: 6+30	Blk Time: 6+20 6.3 Hrs	Flt Time: 5+58 6.0 Hrs
Sponsoring Org: NOAA/NHC	Program: Hurr 2004	Purpose: H. IVAN

AOC Flight Crew

Aircraft Commander: <u>TEBEEST, R</u> ✓	Data System: <u>LYNCH, T</u> ✓
Co-Pilot: <u>STRONG, T</u> ✓, <u>NELSON, M</u> x3 ✓	AVAPS: <u>SMITH, J</u> ✓
Navigator: <u>SIEGEL, P</u> ✓, <u>BRAKOB, D</u> ✓	System Eng:
Flight Eng: <u>FLOYD, D</u> ✓, <u>KLIPPEL, J</u> ✓	A A:
Flight Director: <u>SHEPHERD, T</u> ✓	A A:
Avionics: <u>SANS SOUCI, D</u> ✓	Crew Chief:

Participating Scientists / Visitors

Name (Last, First)	Activity on Aircraft	Affiliation
<u>BLACK, M</u> ✓	<u>PI</u>	<u>NOAA/HRO</u>
<u>GAMACHE, J</u> ✓	<u>RADAR-SFMR</u>	
<u>WALSH, E</u> ✓	<u>SRA</u>	
<u>REDMAN, R</u> ✓	<u>MEDIA</u>	<u>Mac Dill THUNDERBOLT</u>

Remarks (Storm Name, Mission ID, Recco Times, Fix Times)	Recco Times	Fix #	Fix Time
Storm Name: <u>IVAN</u>	1-2018 0104		
Mission ID: <u>NOAA3 3009A IVAN</u>	2-2039 0130		
Penetration number and time	-2211		
1-2151	2232		
2-2352	2314		
	0029		

(See reverse for additional remarks)

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Flight ID: 040913I Time Off: 2001Z Time On: Z

	A/C - Takeoff	Wx Station - Takeoff	A/C - Land	Wx Station - Land
Pressure	<u>1012.2 mb</u>	<u>1013.2 mb</u>	<u>1012.9 mb</u>	<u>1013.0 mb</u>

ATIS	Time	Observation					
Takeoff <u>L</u>	<u>1855Z</u>	<u>130/11</u>	<u>7sm</u>	<u>SCT030</u>	<u>BLW250</u>	<u>32/21</u>	<u>A2992</u>
Land <u>O</u>	<u>2155Z</u>	<u>080/7</u>	<u>7sm</u>	<u>FEW030</u>	<u>SCT12</u>	<u>BLW50</u>	<u>31/23 A2988</u>

	Number	Data Disposition / Date / Quality
Flight Level Tapes	<u>2</u>	
Radar Tapes	<u>1</u>	
Cloud Physics Tapes / CDs		
Video Tapes	<u>4</u>	
Dropsondes	<u>20</u>	Good: <u>19</u> Bad: <u>1</u>
AXBT	<u>0</u>	
AXCP	<u>1</u>	
AXCTD		

Remarks:

RADAR FIX 0108Z
2140 8515

DINKAF470 DIRECT BLOND @ 212



**NOAA P-3 N43RF
CBLAST 2004
FLIGHT #10**

Flight ID: I040913

<u>Sensor or system</u>	<u>Number or Name</u>
INE.....	1
Accelerometer.....	1
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: 2001Z
Land: 0159Z

The RA-232 was substituted for the RA-159 during take off and landing due to spiking (T.O. 195701-200227; Land 015753-020200).

The RA-159 had spikes that were removed and patched (003924-003937; 004002-004007; 004613-004627; 004708-004721; 004801-004815; 005739-005752; 010821-010835).

Dew pointer #2 had a spike that was removed and patched (015237-015400).

No data gaps were noted.

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

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.

	Take off	Land
Aircraft Static Pressure	1012.2 mb	1012.9 mb
Corrected Tower Pressure	1013.2 mb	1013.0 mb

Flight Director: Tom Shepherd
813-828-3310 x3053

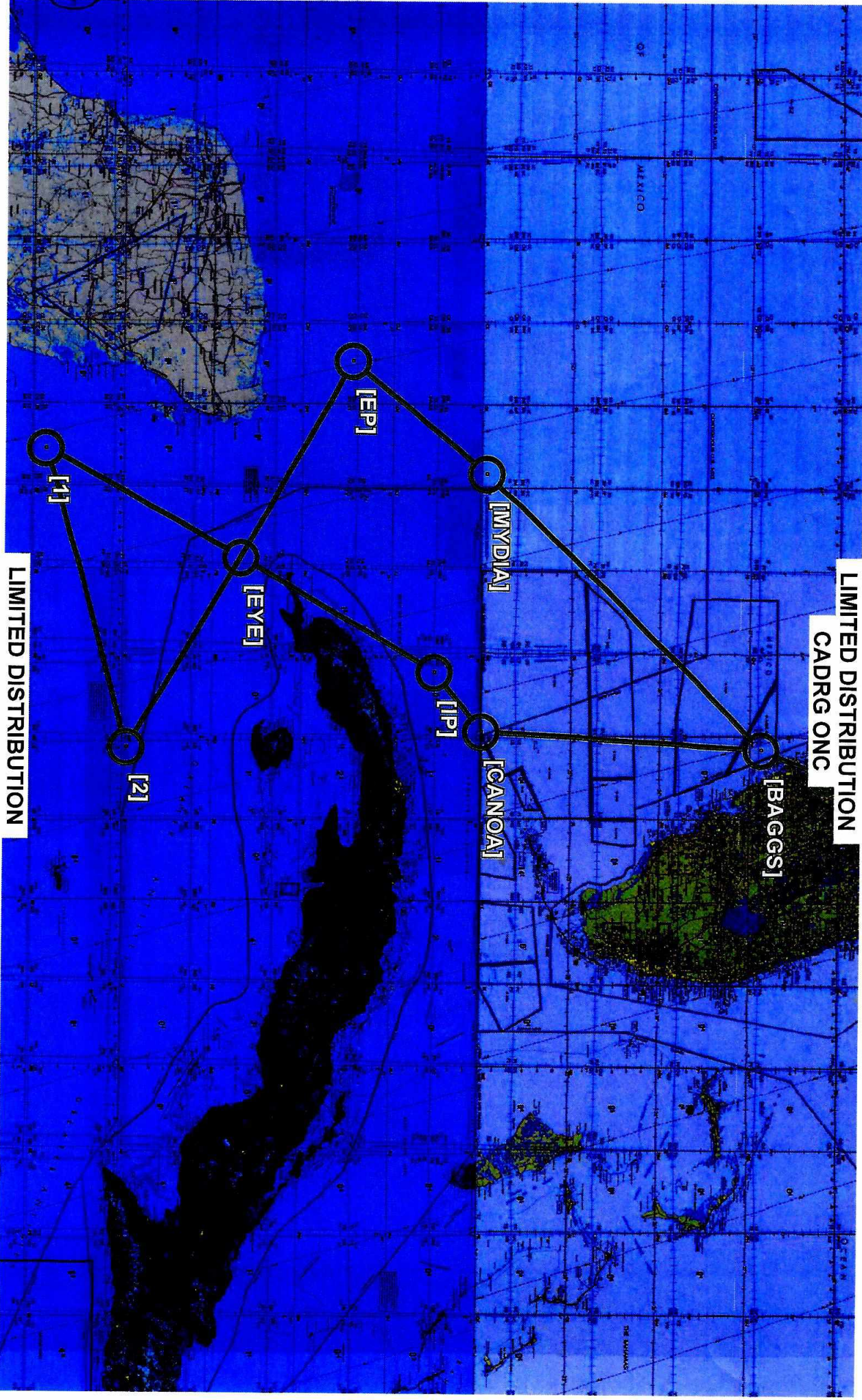
Mission JUAN - SFMR Flt ID 040913I

SED Crew LYNCH SANS SOUCL SMITH

Pre-Flight 1800Z Take-Off 20:00 Landing 01:59

System		Pre-Flight		In-Flight			Post-Flight				
NAV	GPS	FM: 1					LAT	LONG	GS	RE	
	INE #1	Time On: 1810Z	Aligned to: ①				+10	467	0	1	
	INE #2	Time On: 1810Z	Aligned to: ①				-2.10	11.5	2	3	
	Diff GPS										
RADAR	MARS Data	Start	Stop	Ready?	HRD?		# DATs ? 2 Given To: JAG				
	MARS	20:07	22:21	TL	Y/N						
	MARS Data / Tape Status	20:21 - 01:36			LFRec	TARec	EOP's				
	MARS LU8	Clean		TL							
	MARS LU9	Clean		TL							
	RADAR R/T SN	Tail 202/102LF	102	TL	Mod Switches	ON	Mod Switches	5S OFF			
PMS	Nose						Power	OFF			
	FSSP Ref VDC:	Covers	OFF				Covers	ON			
	Cloud Mono	Covers	OFF				Covers	ON			
	CIP	Covers	OFF				Covers	ON			
TEMP	SEA Data DAT	Start	Stop	Ready?	#DATS	Errors	Disk Write	Given To: —			
	DAT	Clean?					Y / N				
PRESES		Cal High	Cal Low				Cal High	Cal Low			
	Temp #1	30.4	-30.3	TL			30.6	-30.2			
	Temp #2			TL			Power	OFF			
	Temp #3			NI			Power	OFF			
FLTLVL	Dewpoint	① ② ③ (TTL)		TL			Power	OFF			
	Attack / Slip Angle	① ② ③ ④ ⑤ ⑥		TL			Power	OFF			
	Differential	① ② ③ ④ ⑤ ⑥		TL			Power	OFF			
RAMS	Absolute	① ② ③ ④ ⑤		TL			Power	OFF			
	Aprn-159 SN:	66-024		TL			Power	OFF			
	Aprn-232 SN:	1761		TL			Power	OFF			
	Liquid Water	① ② ③ ④		JAS	28V WOW: ON?		Power	OFF			
RAMS	Radiometer	① ② ③		TL	28V WOW: ON?		Power	OFF			
	RAMS Data	Start	Stop	Ready?	Errors 8:	Errors 9:	# DATs ? 2 Given To: SV				
	CPU: A (B)	19:47	02:09	TL	0	1	Power	OFF			
	RAMS Data / Tape Status				Slow Rec	Fast Rec	Disk Records: 2292				
	RAMS LU8	Clean		TL	2292	2292					
	RAMS LU9	Clean		TL	2292	2292					
MISC	Flight Director Laptop			OFF			Power	OFF			
	Network			NI							
	ASDL Mission #:	3009A	Name: JUAN	TL	Freq: 30	Block: 10	Power	OFF			
	C.I. Printer	Start	Stop	Ready?	Paper Bin Stores		Given To:				
USER	PRATE: 10	19:47	02:09	TL	0%	25%	50%	75%	100%	Power OFF	
	Exterior Walk Around	Plugs	Covers	JAS			Plugs	Covers			
	SATCOM	(W/S) Inmarsat	GlobalStar	OFF			Power	OFF			
	AXBT Internal	# Loaded:		NA			# Launched:	1			
	AXBT External	# Loaded:		NA			# Launched:	1			
	AVAPS	# On Board:	53	JS			# Dropped:	20			
USER	Video Cameras	Start	Stop	Ready?	Cameras	Mode	# Tapes ? Given To:				
	VHS SVHS	19:46	02:10		(N)(B)(D)	2 (12)	Lens Cap ?:	18			
	FCU	-B-C-D-		TL			UPS	OFF			
	SFMR	① ② ③		TL							
USER	HRD Work Station			MBIK			Accelerometers				
	NASA SRA			EW			#1 (2 G):	0205			
	ARL BAT Probe, SST & IRGA			N4-JS			#2 (2.5 G):	0687			
	UW PDA			NLL			#3 (3 G):	5967			
	Scripps MASS, Laser Alt, IR Cam & Sono			NM			#4 (3.5 G):	2892			
RSMAS Licor			TL								

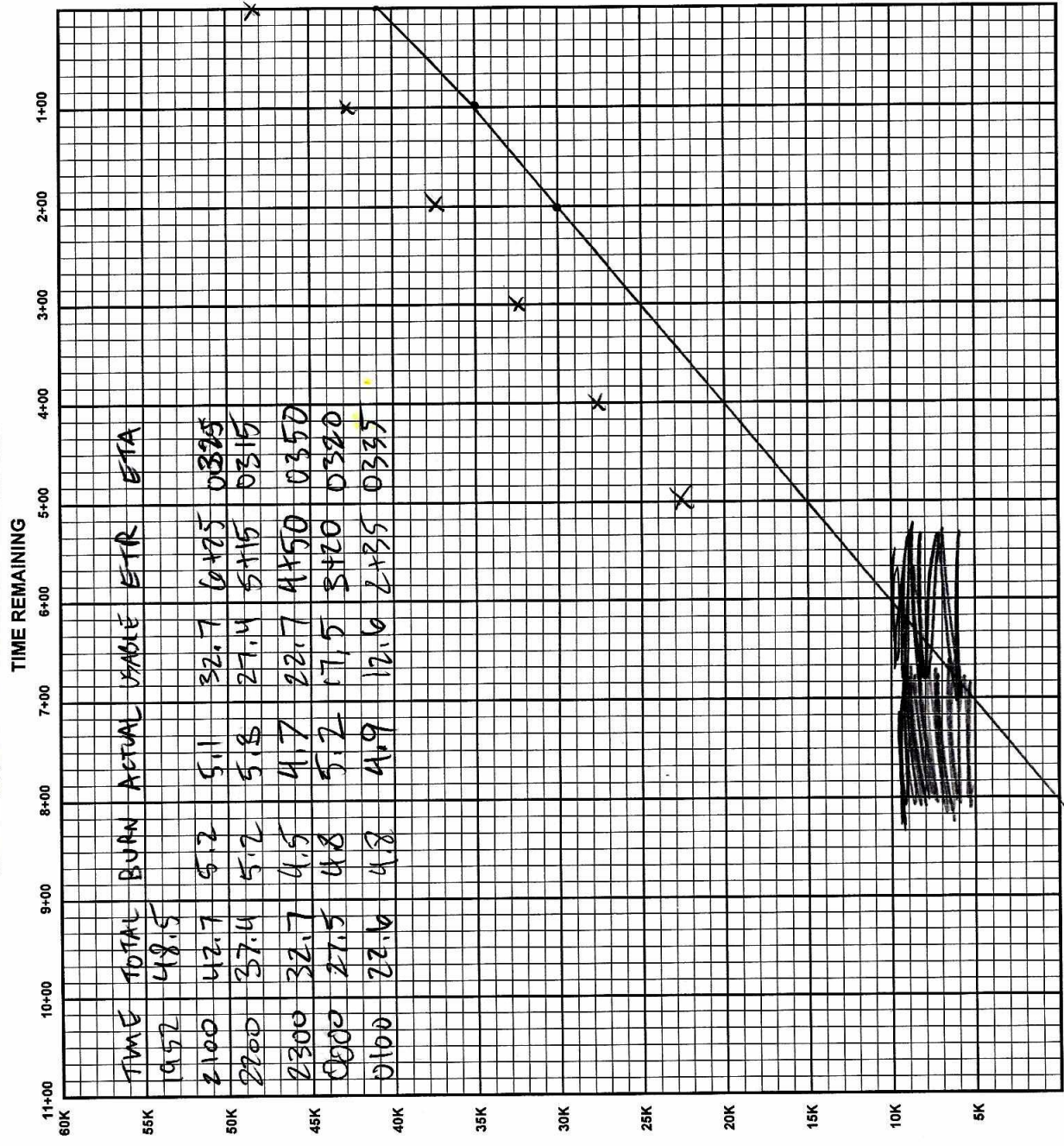
LIMITED DISTRIBUTION
CADRG ONC



LIMITED DISTRIBUTION

0
25
31

RANGE CONTROL GRAPH



ENROUTE FUEL

ENROUTE TIME	6000
ENROUTE FUEL (6K-5K+5K RULE)	31
RESERVE AT DESTINATION	10
RAMP REQUIRED	41
ACTUAL RAMP FUEL	48.5

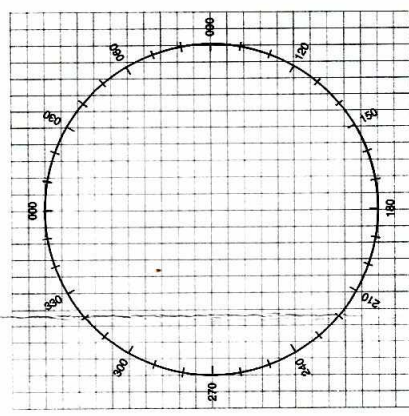
TACTICAL (OFFSTA TO DESTINATION)

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



TRUE AIRSPEED CROSS-CHECK

PRESS ALT	10,000	200	250	300	350
10,000	1.0	1.0	1.0	.99	.99
20,000	.99	.99	.98	.97	.97
30,000	.97	.96	.96	.95	.94
40,000	.96	.94	.94	.92	.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	2015	IAS	193	PRESS ALT	170	F ¹ FACTOR	X	EAS	X	OAT	+14	TAS	234	ITAS	238
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DISTANCE REMAINING

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

