

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

AOCWF1

Flt ID: H080720	From: KMCF	To: KMCF
Flt No: 08 044	Blk In: 1732Z	ATA: 1723Z
ETD: 0800Z	Blk Out: 0810Z	ATD: 0819Z
ETE:	Blk Time: 9:22 (9.4)	Flt Time: 9:04 (9.1)
Sponsor Org: H080720 EMC	Program: HURRICANE	Purpose: GENESIS FOR DISTURBANCE IN W. CARIB

AOC Personnel

AC: CHoy	Sys Eng:
CP: GIRIMONTE	Data Sys: PEEK
Nav: BOYD GALLAGHER	Radar:
FE: BAST / WADE	GPS/BT: BOSKO
FD: DAMIZANO	Cld Phys:
Avionics: OLNEY	

Participating Scientists / Visitors / AOC

Name (Last, First)	Activity on Aircraft	Affiliation
GAMACHE, J	PI PI	HRD
BLACK, M	PI	HRD
LORSOLO, S	OBS	HRD
ELKINS, D new	OBS	AOC INTERN (OPS)
CHU, T	C-SCAT	UMASS
MANUS, J	C-SCAT	UMASS

Proposed/Actual Mission Remarks (Recco, Fixes, Storm, PENET, NHOP #)

021 no ASDL displayed
no sound data on Remote AVAPS
LF stopped 1130Z

Changed
1469530 → GPS Blend
1420Z

1820pm 5:20Z CARCAH
12Z

PSAA INVEST
17.5W 83.0W
285/16
15MFT

1500Z
Service minor
Rebalance > left on

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AOCWF2

Flt ID: *H 080720* Time Off: *0819Z* Time On: *1723Z*

	A/C (Take Off)	Wx Station (Take Off)	A/C (Land)	Wx Station (Land)
Pressure	<i>1016.5</i>	<i>30.04 / 1016.3</i>	<i>1018.3</i>	<i>30.12 / 1018.6</i>

	Number	Data Disposition / Date / Quality
Flt Lvl Tapes	<i>2</i>	
Radar Tapes	<i>1</i>	
Cloud Physics Tapes		
Video Tapes		
AXBT		
AXCP		
AXCTD		
Dropsondes	<i>7</i>	<i>Had all good + all transmit</i>

Video

	Forward	Left Side	Right Side	Down	Remarks
Time On					
Time Off					
Rate					

Remarks

0702
24
24
30.04
16550165400 20246 H49550



N42RF ERROR SUMMARY GENESIS OF TS DOLLY



Flight ID: 080720H

<u>Sensor or system</u>	<u>Number or Name</u>
Inertial	INE1
Accelerometer	ACC1
Temperature Probe	TT1
Dew Point Probe	TDM2X (EdgeTech)
Static Pressure	PSF
Dynamic Pressure	PQF1
Vert. Wind	RA159X
Constants File	n42_hur08v3.adc
Project Directory	/acdata/2008/hur08

Notes:

There were no data gaps.

There were no liquid water sensors available for the flight.

The APN-159 (RA159X) radar altimeter output was replaced with RINU-1550 blended GPS altitude data during the low level (1500 feet) portion of the flight from 115900Z – 150216Z. The replacement values were used to extrapolate sea level pressure from altitude for the 1353Z VORTEX message that was transmitted to NHC.

During a descent the measured dewpoint temperature #2 (EdgeTech)...TDM2...exhibited erroneous data from 120219Z - 120450Z. The erroneous data was removed by substituting TDM3(Maycomm/TDL) output using the following equation,

$$\text{TDM2} = \text{TDM3} - 1.50$$

All other instruments worked optimally during the flight.

Seven (7) GPS dropsondes were deployed all being good. Their corresponding tempdrop messages were successfully sent to NHC.

Takeoff

Landing

0819Z

1723Z

Aircraft Static Pressure

1016.3mb

1018.3mb

Corrected Tower Pressure

1016.3mb

1018.6mb

Flight Director: A. Barry Damiano (813) 828-3310 ext. 3073

1080720

INE 1

ACC 1

TT 1

PSF

PQF 1

DW 2

~~RA 159~~

~~22~~
No Data Gaps

Fix RA 159 with H69530

08151-082224 offset = 0.

170827-172700

RA 159 = alt 11

115900-150216

low level

offset = 0.

no fix DW2 fix using DW3
~~0930-0935~~

~~093022-093050-093155-093240~~

~~DW2 fix using DW3~~

~~120150-120530~~

~~120023-120200~~

~~120137-120450~~

~~120222-120400~~

~~120136-120450~~

fix DW2 using DW3

~~093022-093050-093155-093240~~

offset = 1.5

120219-120450

11.944

-6

11.664

H 080720

Drop 1	1012.7	21.17N	83.55W
Drop 2	1012.9	20.49N	80.56W
Drop 3	1010.9	19.86N	82.07W
Drop 4	1009.8	19.32N	83.49W
Drop 5	1011.2	19.34	83.71W
Drop 6	1012.5	20.10N	84.41W
Drop 7	1014.3	20.86N	85.12W

DATE 7/20/08		SCHEDULED RX TIME		AIRCRAFT NUMBER N42RF		FLIGHT DIRECTOR Dammair	
WX MISSION IDENTIFIER						OB NUMBER 16 12	
VORTEX DATA MESSAGE							
A	20 11353 Z		DATE and TIME of FIX				
B	17 DEG 58 MIN N S		LATITUDE of FIX				
	83 DEG 51 MIN W E		LONGITUDE of FIX 8332				
C	NMB N/A M		MINIMUM HEIGHT of STANDARD LEVEL				
D	35 KT		ESTIMATE of MAXIMUM SURFACE WIND OBSERVED				
E	080 DEG 80 NM		BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND				
F	130 DEG 50 KT		MAXIMUM FLIGHT LEVEL WIND NEAR CENTER				
G	080 DEG 85 NM		BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND				
H	EXTRAP 1009 MB		MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.				
I	23 C / 450 M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE				
J	24 C / 463 M		MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE				
K	22 C / 28 C		DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE				
L	N/A		EYE CHARACTER: Closed wall, poorly defined, open SW, etc.				
M	N/A		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	134/01		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	1 / 1 NM		NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY				
P	REMARKS SLP EXTRAPOLATE FROM 1500 FT MAX FL WIND 50 KT E QUAD 1324 Z 292/13kt 1A with now						

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.

DATE 7/20/08	SCHEDULED RX TIME	AIRCRAFT NUMBER NYLRF	FLIGHT DIRECTOR DAMIANO
WX MISSION IDENTIFIER			OB NUMBER

VORTEX DATA MESSAGE

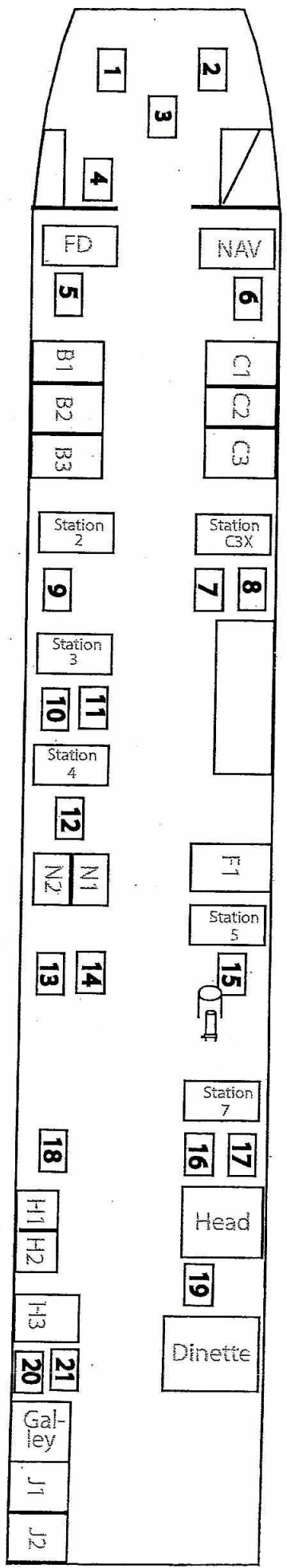
A	20 / Z	DATE and TIME of FIX
B	DEG MIN N S	LATITUDE of FIX
	DEG MIN W E	LONGITUDE of FIX
C	NA M	MINIMUM HEIGHT of STANDARD LEVEL
D	KT	ESTIMATE of MAXIMUM SURFACE WIND OBSERVED
E	DEG NM	BEARING and RANGE FROM CENTER of MAXIMUM SURFACE WIND
F	DEG KT	MAXIMUM FLIGHT LEVEL WIND NEAR CENTER
G	DEG NM	BEARING and RANGE FROM CENTER OF MAXIMUM FLIGHT LEVEL WIND
H	MB	MINIMUM SEA LEVEL PRESSURE COMPUTED FROM DROPSONDE OR EXTRAPOLATED FROM FLIGHT LEVEL. IF EXTRAPOLATED, CLARIFY IN REMARKS.
I	C / M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE OUTSIDE EYE
J	C / M	MAXIMUM FLIGHT LEVEL TEMP / PRESSURE ALTITUDE INSIDE EYE
K	C / C	DEWPOINT TEMP / SEA SURFACE TEMP INSIDE EYE
L	NA	EYE CHARACTER: Closed wall, poorly defined, open SW, etc.
M	NA	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		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	1 / 1 NM	NAVIGATION FIX ACCURACY / METEOROLOGICAL ACCURACY
P	REMARKS SLP Extrapolate from 1500 FT 320 MAX FL WIND _____ KT _____ QUAD _____ Z' 180 116 30-350 Band at 44 knots 1830 8319 1842 8307	

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.

1500Z

NOAA AIRCRAFT OPERATIONS CENTER

Flight ID 1680720



- | | | |
|--------------------------------------|--|--|
| 1. <u>CHoy</u>
PILOT | 8. <u>BE</u>
STATION C3X | 15. <u>BOSKO</u>
STATION 5 |
| 2. <u>GIRIMOWTE</u>
COPLOT | 9. <u>LORESOLO</u>
STATION 2 | 16. <u>CHU</u>
STATION 7 |
| 3. <u>BAST</u>
FLIGHT ENGINEER | 10. <u>BLACK, M</u>
STATION 3 | 17. <u>MANUS</u>
STATION 7 |
| 4. <u>ELKINS</u>
STATION 1 | 11. <u>CHAMACHE</u>
STATION 3 | 18. <u>OLNEY</u>
STATION 8 |
| 5. <u>DAMIANO</u>
FLIGHT DIRECTOR | 12. <u>DEEK</u>
STATION 4 | 19. _____
DINETTE |
| 6. <u>BISHOP</u>
NAVIGATOR | 13. _____
PROJECT SEAT | 20. _____
GALLEY |
| 7. <u>WADE</u>
STATION C3X | 14. _____
PROJECT SEAT | 21. _____
GALLEY |

N42RF AVAPS DropSonde Log

Project: GENISIS Flight ID: 080720h Flt Dir: BARRY

Mission: AL94 Flight #: 1 Status: Sys 1 ☒ Sys 2 ☒

Drop #	Sonde Serial Number	Chn. #	Time (Zulu)	Press. Offset	Winds time	Operator Initials	Comments /Status/ Failure Reason	\$	Good ☒
1	061229156	1	1031	0	4	WRO	KEUF		☒
2	054556544	1	1104	0	4	↓			☒
3	060226293	1	1135	0	4	JB			☒
4	060226064	1	1153	-.3	2				☒
5	061229008	1	1509	-1.0	4				☒
6	061229018	1	1522	-.4	4				☒
7	060226506	2	1536	-.4	4				☒
8									
9									
10									
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32									
33									

\$ Codes A = AOC

N = NHC/NWS

H = HRD

OW = NESDIS

___ = ___ = ___

N42RF AVAPS DropSonde Log

Project: GENESIS Flight ID: 080720h Flt Dir: BARRY

Mission: AL94 Flight #: 1 Status: Sys 1 ☒ Sys 2 ☒

Drop #	Sonde Serial Number	Chn. #	Time (Zulu)	Press. Offset	Winds time	Operator Initials	Comments /Status/ Failure Reason	\$	Good ☒
1	061229156	1	1031	0	4	WRO	FEUF		✓
2	054556544	1	1104	0	4	↓	EMC		✓
3	060226293	1	1135	0	4	JB			✓
4	060226064	1	1153	-.3	2	↓			✓
5	061229008	1	1509	-1.0	4	↓			✓
6	061229018	1	1522	-.9	4	↓			✓
7	060226506	2	1536	-.4	4	↓			✓
8									
9									
10									
11									
12									
13									
14									
15									
16						↓			
17									
18									
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26									
27									
28									
29									
30									
31									
32									
33							✓		

\$ Codes A = AOC N = NHC/NWS H = HRD OW = NESDIS = =

EMC = NWS

SD.0 30MN @ 5000 NOF 24 125.8

3 N1915 8330

2081N

EMERGENCY MESSAGE 8933

TRANSMIT THE FOLLOWING MESSAGE TO ANY AGENCY ON THE AIR-GROUND FREQUENCY IN USE. IF UNABLE TO ESTABLISH COMMS, ATTEMPT CONTACT ON ANY OF THE FOLLOWING EMERGENCY FREQUENCIES:

UHF/VOICE VHF/VOICE MF/VOICE HF/CW MF/CW
243.0 121.5 2182 KHZ 8364 KHZ 500 KHZ

MAYDAY, MAYDAY, MAYDAY
THIS IS NOAA, NOAA, NOAA

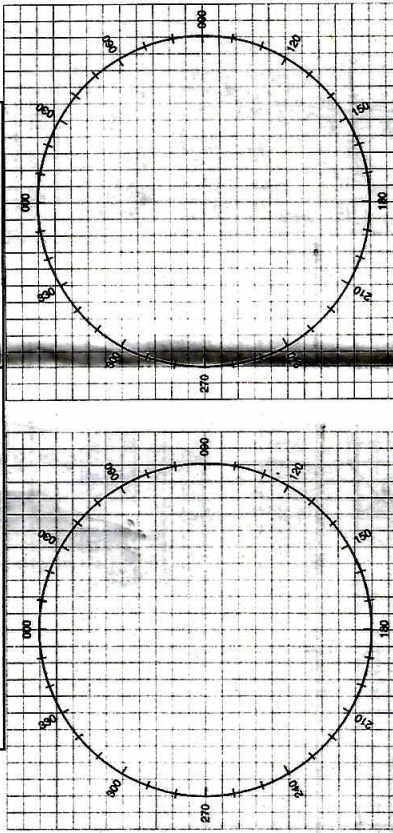
POSITION N/S E/W AT Z
HEADING TRUE/MAG
AT KTS TRUE/INDICATED
FLIGHT LEVEL OR ALTITUDE
WE ARE A P-3 AIRCRAFT WITH SOULS ON BOARD
NATURE OF EMERGENCY
ASSISTANCE DESIRED
PILOT INTENTIONS
WE HAVE ENDURANCE REMAINING

POSITION REPORT

1. POSITION
2. TIME
3. ALTITUDE
4. NEXT POSITION
5. ETA
6. NEXT POSITION

MISSION LOG

PAGE 1 OF 1



TIME	FIX TYPE	POSITION	INS 1 POSITION	K ERR	INS 2 POSITION	K ERR	MH	VAR +E==>	TH	DR R==>	TRK	GS	WD	WS	ALT	TAS	NEXT PT	DIST	TIME	ETA	REMARKS
0820	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	222	3W	222	-	222	269	099	11	1100	272	NV	248	453	0913	
0920	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	170	1W	189	2L	174	269	078	30	1100	272	NV	248	453	0913	
1020	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	116	4W	106	2L	104	286	125	26	1400	262	2	52	413	1033	
1120	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	250	289	125	29	1400	271	3	86	413	1133	
1220	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	1L	055	280	149	30	1500	272	4	120	431	1231	
1320	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	5	120	431	1231	
1420	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	6	120	431	1231	
1520	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	7	120	431	1231	
1620	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	8	120	431	1231	
1720	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	9	120	431	1231	
1820	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	10	120	431	1231	
1920	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	11	120	431	1231	
2020	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	12	120	431	1231	
2120	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	13	120	431	1231	
2220	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	14	120	431	1231	
2320	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	15	120	431	1231	
2420	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	16	120	431	1231	
2520	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	17	120	431	1231	
2620	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	18	120	431	1231	
2720	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	19	120	431	1231	
2820	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	20	120	431	1231	
2920	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	21	120	431	1231	
3020	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	22	120	431	1231	
3120	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	23	120	431	1231	
3220	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	24	120	431	1231	
3320	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	25	120	431	1231	
3420	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	26	120	431	1231	
3520	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	27	120	431	1231	
3620	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	28	120	431	1231	
3720	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	29	120	431	1231	
3820	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	30	120	431	1231	
3920	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	31	120	431	1231	
4020	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	32	120	431	1231	
4120	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	33	120	431	1231	
4220	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	34	120	431	1231	
4320	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	35	120	431	1231	
4420	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	36	120	431	1231	
4520	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	37	120	431	1231	
4620	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	38	120	431	1231	
4720	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	39	120	431	1231	
4820	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	40	120	431	1231	
4920	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	41	120	431	1231	
5020	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	42	120	431	1231	
5120	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	43	120	431	1231	
5220	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	44	120	431	1231	
5320	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	45	120	431	1231	
5420	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	46	120	431	1231	
5520	△	27-43.9 082-33.6	27-43.9 082-33.6	-	27-43.9 082-33.6	-	063	3W	066	2L	220	218	130	36	1500	272	47	120	431	1231	
5620																					