

Airplan4 includes a Format manager, which enables our Helpdesk staff to modify the layout of flight-plan formats, to suit a customer's requirements. It allows the addition of static text, movement of items to new positions, interlacing of details such as ETPs into the plan block and the inclusion of some calculations.

Customers can review the layout of their flight-plan format and request the incorporation of any of the items detailed below.

95% of modifications can be delivered within 3 working days and at a very reasonable cost. Additional functionality which may be required on the flight plan, if not listed below, could be incorporated in our format manager; but this would require a Halo enhancement request and subsequent software update, before it could be activated.

The following is a listing of the various functions and outputs that are currently available within an AirPlan4 formats.

## Table of Contents

<b>Whole Numbers</b> .....	2
<b>Floating-Point Numbers</b> .....	3
<b>Word Sequences</b> .....	4
<b>Dates</b> .....	6
<b>Times</b> .....	6
<b>Latitudes and Longitudes</b> .....	7
<b>Plug-In Variables</b> .....	7
<b>Special Items</b> .....	7
Waypoints .....	7
Nav Block.....	8
<b>Waypoints</b> .....	9
<b>Equal Time Points (ETPs)</b> .....	10
<b>DRIFTDOWN</b> .....	10
<b>Extended Twin Operations (ETOPS)</b> .....	12
<b>OPMET and NOTAMS</b> .....	14
<b>ATC-PLAN</b> .....	14
<b>WIND-BRACKET</b> .....	14
<b>RECLEARANCE</b> .....	14
<b>ENROUTE-WEATHER</b> .....	14
<b>OVERFLIGHT</b> .....	15
<b>INTERLACE (Merging)</b> .....	16
<b>North AtlanticTracks (NATS)</b> .....	17
<b>Status Message</b> .....	18

## Whole Numbers

- Aircraft alternate bias
- Aircraft climb bias
- Aircraft descent bias
- Aircraft format number
- Aircraft supplementary reserve
- Aircraft tank capacity
- APS weight
- Arrival fuel (see table below)
- Average airspeed (TAS)
- Average groundspeed
- Average ISA deviation
- Average taxi time at departure airport (minutes)
- Average temperature
- Average track (rhumb-line true track)
- Average wind direction
- Average wind speed
- Burn to alternate "n" (1..4)
- Burn to the fuel alternate
- Burn to the second fuel alternate
- Contingency fuel
- Contingency percentage
- Current day (1..31)
- Current month (1..12)
- Current output page number
- Current year (0..99)
- Departure day (1..31)
- Departure month (1..12)
- Departure year (0..99)
- Difference (in feet) between the maximum altitudes and the first multi-level profile
- Difference between the normal trip fuel and the first multi-level fuel
- Distance to alternate "n" (1..4)
- Distance to *departure* alternate "n" (1..4)
- Distance to first *departure* alternate
- Distance to the fuel alternate
- Distance to the second fuel alternate
- Elevation of alternate "n" (1..4)
- Elevation of arrival airport
- Elevation of departure airport
- Elevation of *departure* alternate "n" (1..4)
- Elevation of first *departure* alternate
- Elevation of the fuel alternate
- Elevation of the second fuel alternate
- Enroute alternate distance
- Enroute alternate fuel
- Extra ETOPS critical fuel added
- Extra fuel
- Extra fuel less any supplementary reserve
- Flight plan number
- Fuel burn for multi-level "n" (1..5) – see also MULTI-LEVEL command
- Fuel required at reclearance decision point (see table below)
- Great circle distance
- Hold altitude
- Hold fuel
- Initial cruise speed attained
- Initial ISA deviation
- JAR-OPS additional hold fuel
- Landing weight
- Magnetic track to alternate "n" (1..4)
- Magnetic track to the fuel alternate
- Magnetic track to the second fuel alternate
- Maximum cruise speed attained
- Maximum landing weight
- Maximum ramp weight (i.e. maximum take-off weight plus taxi fuel)
- Maximum take-off weight
- Maximum wind shear velocity
- Maximum zero fuel weight
- Met Data used (see table below):  
The Met Data used  
can take the following values:

Value	Meaning
-3	Still air
-2	Met not valid - use current data
-1	Manual wind
0	Met valid - use current data
1	Use t + 6 hrs forecast
2	Use t + 12 hrs forecast
3	Use t + 18 hrs forecast
4	Use t + 24 hrs forecast
5	Use t + 30 hrs forecast
6	Use t + 36 hrs forecast
10-21	Use statistical data for Jan- Dec

- Met forecast (1 to 6)
- Minimum arrival fuel (see table below)
- Minimum temperature
- Number of planned passengers
- Payload
- Planned weight of freight (i.e. payload minus weight of passengers)

- Ramp weight (i.e. take-off weight plus taxi fuel)
- Reclearance destination elevation
- Reclearance distance
- Required fuel (see table below)
- Required fuel including extra fuel (see table below)
- Required fuel not including taxi fuel (see table below)
- Take-off weight
- Tanking fuel
- TAS to alternate "n" (1..4)
- TAS to the fuel alternate
- TAS to the second fuel alternate
- Taxi fuel
- Taxi fuel flow rate (per hour)
- Total fuel (see table below)
- Total fuel for the reclearance route
- Track to first *departure* alternate
- Trip distance
- Trip fuel
- True track to alternate "n" (1..4)
- True track to *departure* alternate "n" (1..4)
- True track to the fuel alternate
- True track to the second fuel alternate
- User input wind component for a manual wind plan
- Wind component
- Wind component for alternate "n" (1..4)
- Wind component for multi-level "n" (1..5) – see also MULTI-LEVEL command
- Wind component to the fuel alternate
- Wind component to the second fuel alternate
- Wind corrected distance to the fuel alternate
- Wind corrected distance to the second fuel alternate
- Wind corrected route distance
- Zero fuel weight

The various fuel items are defined in the following table:

Item	Taxi (1)	Trip	Contingency (2)	Hold	Alternate	ETOPS	Tanking	Extra	Additional Hold
Arrival fuel			√	√	√		√	√	√
Minimum arrival fuel				√	√				√
Required fuel	√	√	√	√	√	√			√
Required fuel not including taxi fuel		√	√	√	√	√			√
Required fuel including extra fuel		√	√	√	√	√	√	√	√
Total fuel	√	√	√	√	√	√	√	√	√
Fuel required at reclearance decision point		√	√	√	√				√

- (1) The taxi fuel is not included for Random Cruise Plans.  
 (2) The contingency fuel is only included if landing with contingency fuel.  
 (3) The trip fuel is that from the decision point to the destination.

Note the difference between the various alternate items. The “fuel alternate” items refer to the alternate used in the alternate fuel calculation – this may be either the main fuel alternate or the second fuel alternate depending on the JAR-OPS requirements. The alternate “array” items refer to the alternates in the order specified by the user with the exception that the first alternate is always the main fuel alternate.

- Output as a fuel cost (fuel items only)
- Output the number in words, e.g. 123 as ONE TWO THREE.

## Floating-Point Numbers

- Alternate burn correction (percent)
- Arrival airport fuel price
- Average burn rate over trip (weight per minute)

- Burn correction per 1000 weight units decrease
- Burn correction per 1000 weight units increase
- Burn rate (weight per minute) in the cruise phase
- Burn rate (weight per minute) before Top-Of-Descent
- Climb burn correction (percent)
- Computation time (seconds) - purely for use in benchmarking
- Cruise burn correction (percent)
- Departure airport fuel price
- Descent burn correction (percent)
- Fuel price for alternate "n" (n= 1..4)
- Fuel price for the fuel alternate
- Fuel price for the second fuel alternate
- Hold burn correction (percent)
- Initial cruise Mach number
- Mach number to alternate "n" (1..4)
- Mach number to the fuel alternate
- Mach number to the second fuel alternate
- MSA for alternate "n" (1..4)
- MSA for the fuel alternate
- MSA for the second fuel alternate
- MSA to *departure* alternate "n" (1..4)
- MSA to first *departure* alternate
- Output as a fuel cost (fuel items only)
- Output the number in words,  
e.g. 123.4 as ONE TWO THREE DECIMAL FOUR.

A special case exists when the MSA can be "Unknown".  
If this is true then the output will be "UNK" instead of the floating-point number.

## Word Sequences

- When an airline enters callsigns in the "Flight No" field there is a database to translate this to the actual flight number – in order to avoid confusion with the FLIGHT-NO field we term this the TICKET-CODE (since it is what actually appears on a passenger's ticket)
- AIRAC cycle date for the last nav reload
- Aircraft description
- Aircraft manufacturer's identifier
- Aircraft registration
- Aircraft type
- Aircraft weight units
- AirData copyright string
- AirPlan version number (e.g. 2.12.2)
- Airport category for alternate "n" (1..4)
- Airport category for the fuel alternate
- Airport category for the second fuel alternate
- Airport name for alternate "n" (1..4)
- Airport name for *departure* alternate "n" (1..4)
- Airport name for first *departure* alternate
- Airport name for the fuel alternate
- Airport name for the second fuel alternate
- Alternate cruise type
- Alternate cruise type description
- Alternate routing type for alternate "n" (1..4) – "DCT" for Direct, "AWY" for a stored route
- Alternate routing type for the fuel alternate – "DCT" for Direct, "AWY" for a stored route
- Alternate routing type for the second fuel alternate – "DCT" for Direct, "AWY" for a stored route
- Alternate type for alternate "n" (1..4)

- Alternate type for the fuel alternate
- Alternate type for the second fuel alternate
- Arrival airport category
- Arrival airport company frequency
- Arrival airport fuel supplier
- Arrival airport IATA code
- Arrival airport ICAO code
- Arrival airport miscellaneous text field
- Arrival airport name
- ATC registration
- Callsign to flight number translation
- Company frequency for alternate "n" (1..4)
- Company frequency for the fuel alternate
- Company frequency for the second fuel alternate
- Cruise altitude (i.e. first flight level after top-of-climb)
- Cruise altitude for alternate "n" (1..4)
- Cruise altitude for the fuel alternate
- Cruise altitude for the second fuel alternate
- Cruise plan starting flight level
- Cruise type
- Cruise type description
- Departure airport category
- Departure airport company frequency
- Departure airport fuel supplier
- Departure airport IATA code
- Departure airport ICAO code
- Departure airport miscellaneous text field
- Departure airport name
- Departure waypoint (i.e. starting waypoint for Random Cruise Plans)
- Description of the met data used
- Enroute alternate airport code
- Enroute alternate diversion waypoint
- First *departure* alternate miscellaneous text field
- First Officer's initials
- Flight level at maximum wind shear
- Flight level at point of minimum temperature
- Flight level(s) for multi-level "n" (1..5)
- Flight number
- Flight rules
- IATA airport code for alternate "n" (1..4)
- IATA airport code for *departure* alternate "n" (1..4)
- IATA airport code for first *departure* alternate
- IATA airport code for the fuel alternate
- IATA airport code for the second fuel alternate
- ICAO airport code for alternate "n" (1..4)
- ICAO airport code for *departure* alternate "n" (1..4)
- ICAO airport code for first *departure* alternate
- ICAO airport code for the fuel alternate
- ICAO airport code for the second fuel alternate
- Identifier of NAT Track (if used)
- Loadsheet flag ("Yes" or "No")
- Local currency code (e.g. GBP)
- Maximum flight level
- Minimum flight level
- Miscellaneous text field for alternate "n" (1..4)
- Miscellaneous text field for the fuel alternate
- Miscellaneous text field for the second fuel alternate
- Miscellaneous text for *departure* alternate "n" (1..4)
- Name of North American Route (if used)
- Name of the APS combination weight.
- Name of the payload combination weight.
- Performance type cost index
- Pilot's initials
- Plan type (NFP, MLP, COP, etc)
- Plug-in variables available (YES or NO)
- Random routing type (non-ETOPS, ETOPS or Fast ETOPS)
- Reclearance destination airport IATA code
- Reclearance destination airport ICAO code
- Reclearance destination airport name
- Reclearance plan (YES or NO)
- Reclearance waypoint identifier
- Route description
- Route name
- Route name suffix (i.e. characters 7 to 10)
- Scenario type of the ETOPS/Driftdown critical fuel scenario
- Seating configuration
- System name (i.e. AirPlan4)
- Text entered for plan input "miscellaneous" field

- Total number of pages in output
- Username of current user
- Waypoint at maximum wind shear
- Waypoint at minimum temperature
- Weather reference date/time (format DDHHMM)
- Weather reference validity end date/time (format DDHHMM)

## Dates

- Arrival date
- Current date
- Date at which the current nav data becomes effective
- Date at which the current nav data expires
- Departure date
- output in ISO-8601 format (i.e. year, month, day)
- output in month, day, year format instead of the standard day, month, year format
- output the month as a 3-character string (Jan, Feb, Mar, etc)
- output the month as the full name (January, February, March, etc)
- output the month in upper case
- output the year as 4 digits
- Weather reference date
- Weather validity end date

## Times

- Additional hold fuel endurance time
- Contingency fuel endurance time
- Current time
- Departure time
- Endurance time (see table below).
- ETA at alternate "n" (1..4)
- ETA at arrival airport
- ETA at the fuel alternate
- ETA at the second fuel alternate
- Extra ETOPS critical fuel endurance time
- Extra fuel endurance time
- Extra fuel minus supplementary reserve endurance time
- Hold fuel endurance time
- Required fuel endurance time (see table below)
- Scheduled arrival time ("....." if none)
- Scheduled departure time ("....." if none)
- Scheduled duration (i.e. difference between scheduled departure and arrival times)
- Tanking fuel endurance time
- Taxi time (i.e. either the average taxi time or the taxi fuel divided by the taxi rate)
- Time to alternate "n" (1..4)
- Time to the fuel alternate
- Time to the second fuel alternate
- Total endurance time (see table below)
- Trip time for multi-level "n" (1..5)
- Trip time
- Weather validity end time
- Weather reference time

The various fuel endurance items are defined in the following table:

Item	Trip	Contingency	Hold	Alternate	ETOPS	Tanking	Extra	Additional Hold
Endurance Time for minimum arrival fuel			√	√				√
Required fuel endurance time	√	√	√	√	√			√
Total endurance time	√	√	√	√	√	√	√	√

## Latitudes and Longitudes

- Arrival airport latitude
- Arrival airport longitude
- Departure airport latitude
- Departure airport longitude
- Enroute alternate decision point latitude
- Enroute alternate decision point longitude
- Latitude of alternate "n" (1..4)
- Latitude of *departure* alternate "n" (1..4)
- Latitude of first *departure* alternate
- Latitude of the fuel alternate
- Latitude of the second fuel alternate
- Longitude of alternate "n" (1..4)
- Longitude of *departure* alternate "n" (1..4)
- Longitude of first *departure* alternate
- Longitude of the fuel alternate
- Longitude of the second fuel alternate

N12345 and W123450

The first alternative format, specified by a parameter of "1", produces output in the form:

N12 34.5 and W123 45.0

The second alternative format, specified by a parameter of "2", produces output in the form:

N1234.5 and W12345.0

## Plug-In Variables

- Plug-in variables are special values whose availability varies from site to site.
- Plug-in variables may be versions of any of the preceding types.

## Special Items

### Waypoints

There is a special set of items that apply to waypoints and so are only available inside a Nav block. These are:

- Accumulated burn
- Accumulated burn including taxi fuel

- Accumulated distance
- Air distance remaining
- Aircraft weight
- Average magnetic heading
- Basic fuel remaining (see table below)
- Burn to waypoint
- Distance remaining
- Distance to waypoint
- Final magnetic track
- Final true track
- Fuel flow per engine
- Ground speed
- Indicated airspeed
- ISA deviation
- Mach number
- Magnetic heading
- Magnetic track (Initial)
- Maximum allowable altitude on airway
- Minimum allowable altitude on airway
- Temperature
- Time to waypoint from previous waypoint in minutes
- Total fuel remaining (see table below)
- Trip fuel remaining (see table below)
- True airspeed
- True track (Initial)
- Waypoint number in plog
- Wind component
- Wind corrected waypoint distance
- Wind direction
- Wind shear
- Wind speed

The various fuel items are defined in the following table:

Item	Trip	Contingency	Hold	Alternate	ETOPS	Tanking	Extra	Additional Hold
Trip fuel remaining	√							
Basic fuel remaining	√		√	√	√	√	√	√
Total fuel remaining	√	√ (1)	√	√	√	√	√	√

(1) The contingency fuel is only included if landing with contingency fuel.

## Nav Block

There is a special set of floating-point numbers that are only available inside a Nav block:

- True airspeed converted to Mach number
- Wind drift (in degrees)
- Radio beacon frequency
- MSA (in 1000 ft)

A special case exists when the MSA can be "Unknown".  
If this is true then the output will be "UNK" instead of the floating-point number.

There is a special set of word sequences that are only available inside a Nav block:

- Airway name
- Airway type ("A" = STAR, "D" = SID, blank = airway or DCT)
- Co-located DME waypoint indicator ("D" or blank)
- FIR boundary type ("B" = FIR boundary, " " = not FIR boundary)
- FIR identifiers for boundary (format "aaaa/bbbb")
- Flight level
- Identifier of next waypoint
- Identifier of previous waypoint
- Magnetic variation
- Radio beacon frequency
- Waypoint FIR code (from waypoint database and therefore not validated)
- Waypoint identifier
- Waypoint name (i.e. identifier + country code + waypoint type)
- Waypoint type character (A, D, E, N, P or V)
- Wind direction & speed

NOTE: For the AIRWAY item there is an additional optional parameter NODCT which causes "DCT" to be output as "..".

There is a special set of times that are only available inside a Nav block:

- Accumulated time
- Accumulated time from the reclearance waypoint  
(only available in reclearance phase nav blocks)
- Expected time of arrival (i.e. departure time plus time to waypoint)
- Time remaining
- Time to waypoint from previous waypoint

There is a special set of latitudes/longitudes that are only available inside a Nav block:

- Waypoint latitude
- Waypoint longitude

## Waypoints

Waypoints can be output as the latitude and longitude of each waypoint into the route block.

There are two parameters to this command. The first determines the latitude and longitude output format. It can take the values 0 (default) to 3 as follows:

0	N51089W000113	(3 waypoints per line)
1	N51 08.9 W000 11.3	(2 waypoints per line)
2	N5108.9 W00011.3	(2 waypoints per line)
3	N5108.9 W00011.3	(3 waypoints per line)

It can also take the values 10 to 13; these are the same as 0 to 3 except that each waypoint identifier is preceded by “..”.

The second parameter may be “RECLEAR” to output only the waypoints from the reclearance point to the recleared destination.

The default waypoints block appears as follows:

```
EGKK N51089W000113   DVR N51097E001217   KONAN N51078E002000
T-O-C N51074E002083   KOK N51057E002392   DIK N49517E006078
DIK16 N49440E006297   KRH N48596E008351   TGO N48372E009156
TR N41278E019431     GENSU N40370E021030   KAS N40271E021166
T-O-D N39357E022084   ATH N37541E023438   LGAT N37538E023437
```

## Equal Time Points (ETPs)

The ETPS command places any calculated ETPs in the output text.

The parameters allowed are:

- Display airport codes for alternates
- Display burn figures without modification (default is to divide by 100)
- Display burn to ETP
- Display distance to ETP
- Display distances to alternates
- Display latitude and longitude of ETP
- Display time to ETP
- Display wind components between ETP and alternates

If no parameters are specified then the default ETP block appears as follows:

```
ETP EINN/BIRK 02:26 1008NM P018/P015 BURN 0129 N53464W026467
ETP BGBW/CYQX 04:11 1744NM P006/M022 BURN 0202 N53409W046161
```

## DRIFTDOWN

The DRIFTDOWN command places a driftdown block in the output text if driftdown has been calculated.

This may take one of the values DEFAULT, SUMMARY, DETAIL or DETAIL2.

The output produced appears as follows:

### DRIFTDOWN DEFAULT;

```

          LRC          EQUAL TIME POINT DATA
TIME TO ETP 02:26 / DISTANCE 1008 NM / FUEL BURNED 012974
ETP COORDINATES N53 46.4 W026 46.7
FUEL BURNED FROM ETP 014619 / TO ETP ALTERNATES EINN/BIRK
TIME ENROUTE TO ETP ALTERNATES 01:40
BOTTOM OF DRIFTDOWN FROM ETP COORDINATES FL100
WIND COMPONENT TO ALTN EINN P018 / TO ALTN BIRK P015
ISA DEV TO ALTN EINN M05 / TO ALTN BIRK M08
TOTAL ETP FUEL REQUIRED 027593    FUEL REMAINING AT ETP ALTN 006654

```

### DRIFTDOWN SUMMARY;

DRIFTDOWN SUMMARY DATA

SCENARIO	TO	BURN	TO	BURN	FL	FOB	LAT	LON	W
DEPRESSURIZE	EINN	014619	BIRK	014619	100	021273	N53464	W026467	
	BGBW	010513	CYQX	010513	100	013982	N53409	W046161	

WARNING FLAGS: D=FUEL DUMP REQ., F=DIVERT FUEL REQ.

### DRIFTDOWN DETAIL;

DRIFTDOWN DETAIL DATA

DEPRESSURIZE DIVERT SUMMARY ...

LAT/LONG	N53464 W026467	EINN	BIRK
ETP TIME	02:26		
ETP DIST	1008 NM		
ETP FL	390		
ETP FOB	021273		
ETP FUEL REQ	014619		
ETP WT	083863		
G/C DIST		0643	0639
ETP W/C		P018	P015
DRIFT FL		100	100
ENROUTE TEMP		M005	M008
MSA FL		049	078
TIME TO ALTERNATE		01:40	01:40
DRIFTDOWN DUMP FUEL		000000	000000
TOTAL		014619	014619

**DRIFTDOWN DETAIL2;**

```

                EQUAL TIME POINT DATA FOR ONE ENGINE OUT
                SHANNON (EINN) / KEFLAVIK (BIKF)
                FLIGHT LEVEL 430
ETP WAYPOINT AT N53 34.6 W027 36.0      W/C   DIST   TIME TO
ORIGIN APT TO ETP WAYPOINT                1188   02:46
ETP WAYPOINT TO EINN                       P28    672    01:41
ETP WAYPOINT TO BIKF                       P08    643    01:41
TAS AT FLIGHT LEVEL 430                    463
TEMP AT FLIGHT LEVEL 430                   ISA M52
FUEL BURN TO ETP WAYPOINT                   8392
FUEL OVERHEAD ETP WAYPOINT                  9002
FUEL BURN FROM ETP TO ALTN                  4273
FUEL REMAINING AT ETP ALTN                  4729
TOTAL ETP FUEL REQUIRED                       12665

```

**Extended Twin Operations (ETOPS)**

The ETOPS command places an ETOPS report block in the output text if ETOPS calculations have been performed. This may take one of the values DEFAULT, SHORT, SUMMARY, SUITABLES, DETAIL or ENTRY-EXIT.

The output produced appears as follows:

**ETOPS DEFAULT;**

```

EQUAL TIME POINTS

ETP 1 POSN N55244 W023076 EET 02/00
WEIGHT=73449 FOB=13079 REQ=6631 EXTRA=NIL (CRIT=ALL-ENG)
TIME TO ALT: ALL-ENG 01/44 ESAD=524 NM
DIV AIRPORTS EINN N52421 W008553 524 NM DT=+0 WC=+0
BIRK N64077 W021566 525 NM DT=+0 WC=+0
ANTI ICE ON: REQ= 7626

ETP 2 POSN N55162 W037599 EET 03/07
WEIGHT=70368 FOB=9998 REQ=8582 EXTRA=NIL (CRIT=ALL-ENG)
TIME TO ALT: ALL-ENG 02/25 ESAD=716 NM
DIV AIRPORTS BIRK N64077 W021566 716 NM DT=+0 WC=+0
CYYT N47371 W052451 715 NM DT=+0 WC=+0
ANTI ICE ON: REQ= 9869

```

**ETOPS SHORT;**

```

ETP 1 POSN N53047 W027318 EET 02:21 FOB=14101 REQ=12751 EXTRA=NIL
TIME TO ALT: ALL-ENG 02:12 ESAD=672 NM EINN 671 BIKF 672
ENG-INOP 02:16

ETP 2 POSN N52407 W034180 EET 02:54 FOB=12612 REQ=14483 EXTRA=2045
TIME TO ALT: ALL-ENG 02:33 ESAD=769 NM BIKF 769 CYYT 769
ENG-INOP 02:37

```

**ETOPS SUMMARY;**

## ETOPS SUMMARY DATA

SCENARIO	DIST	W/C	CFR	FOB	CFS
ALL-ENG	EHAM/LPFR 0536/0539 N44092 W000445	M001/P000	07355	007997	00000
ENG-INOP	EHAM/LPFR 0536/0539 N44092 W000445	M001/P000	07015	007997	

**ETOPS SUITABLES;**

## ENROUTE SUITABLES

EHAM AMSTERDAM SCHIPHOL	N52185 E004459	1200/1314	(...../.....)
LPFR FARO	N37008 W007579	1442/1710	(...../.....)

**ETOPS DETAIL;**

## ETOPS DETAIL DATA

## ALL-ENG DIVERT SUMMARY ...

LAT/LONG	N44092 W000445	EHAM	LPFR
ETP TIME	01/24		
ETP DIST	556 NM		
ETP FL	280		
ETP FOB	007997		
ETP FUEL REQ	007355		
ETP WT	092007		
G/C DIST		0536	0539
CRUISE DIST		0537	0539
ETP W/C		M001	P000
ENROUTE TEMP		M001	P005
DIVERT FL		100	100
MSA FL		091	109
TIME TO ALTERNATE		01/38	01/37
DUMP FUEL		000000	000000
TOTAL		007354	007355

**ETOPS ENTRY-EXIT;**

## ETOPS ENTRY/EXIT POINTS

Entry between ARMED and 4420N at N42596 W015485	85 nm and 11 mins from ARMED
Exit between 4420N and 4430N at N44063 W025570	257 nm and 34 mins from 4420N
Entry between 4430N and 4440N at N44065 W034503	209 nm and 28 mins from 4430N
Exit between 4440N and 4450N at N44057 W046511	296 nm and 39 mins from 4440N
Entry between 4450N and 4260N at N42505 W056223	286 nm and 38 mins from 4450N
Exit between 4450N and 4260N at N42478 W056349	296 nm and 39 mins from 4450N

## OPMET and NOTAMS

The OPMET command places any applicable OpMet in the output text.

Similarly, the NOTAM command places any applicable Notams in the output text.

## ATC-PLAN

The ATC-PLAN command places the ATC plan in the output text.

## WIND-BRACKET

The WIND-BRACKET command places a wind bracket block in the output text. This is usually only used in Backup plans.

The wind bracket block appears as follows:

COMP	-100	-80	-60	-40	-20	20	40	60	80	100
FUEL	6145	5877	5635	5418	5221	4878	4727	4588	4460	4342
TIME	2:16	2:09	2:04	1:59	1:54	1:46	1:42	1:39	1:36	1:33
PAY-	0	0	0	0	0	0	0	0	0	0
FL	410	410	410	410	410	410	410	410	410	410

## RECLEARANCE

The reclearance fuel block can be output if the plan has been recleared. If the plan has not been recleared then there is no output.

The reclearance fuel block appears as follows:

RECLEARANCE INFORMATION							
FUEL	TIME		FUEL	TIME		FUEL	TIME
RIF FUEL		ROCAN/LEPA	000366	00:54	ROCAN/LEBL	000136	00:22
ALT		LEMH	000193	00:20	LESA	000158	00:15
CONT		5%	000315	00:43	5%	000315	00:41
HOLD			000330	00:45		000330	00:43
TOTAL REQD AT RIF			001204			000939	

## ENROUTE-WEATHER

The enroute weather block can be output if the plan has not been produced with a manual wind. The parameters to this command are the flight levels required in the weather block. There can be a maximum of 5 levels specified. If none are specified the default levels are 100, 240, 300, 340 and 390.

The enroute weather block appears as follows:

```

ENROUTE WX
      FL100      FL240      FL300      FL340      FL390
      DT  WV      DT  WV      DT  WV      DT  WV      DT  WV
NIK    M02 28/016  P02 18/038  M03 16/050  M01 16/050  P02 18/040
CIV    M02 27/017  P02 19/038  M03 16/051  P00 16/049  P03 18/039
GORTU  M02 30/017  P01 21/023  M04 17/031  P01 18/027  P04 21/025
CLM    M02 30/018  P01 21/023  M04 17/030  P01 18/027  P05 22/025
BARDI  P04 30/028  P07 31/075  P05 31/099  P03 32/102  M01 32/081
ELVAR  P08 30/029  P09 31/060  P07 31/073  P04 32/073  M04 32/062

```

The flight levels specified may be symbolic names instead of actual numbers. The following names are recognised:

```

CRZ      Cruise altitude (see variable CRZ-ALT).
CRZ+1    One flight level above cruise altitude.
CRZ-1    One flight level below cruise altitude.
CRZ+2    Two flight levels above cruise altitude.
CRZ-2    Two flight levels below cruise altitude.
CRZ+3    Three flight levels above cruise altitude.
CRZ-3    Three flight levels below cruise altitude, etc (up to CRZ+9 and CRZ-9).

```

For example:

```
^ENROUTE-WX CRZ-3,CRZ-2,CRZ-1,CRZ,CRZ+1;
```

Alternatively, the flight levels may be specified in feet relative to the cruise altitude, for example:

```
^ENROUTE-WX CRZ-3000FT,CRZ-2000FT,CRZ-1000FT,CRZ,CRZ+1000FT;
```

## OVERFLIGHT

The overflight report can be output. The output can take the values 0 to 4.

**Type 0**, which is the default, produces an FIR report. This appears as follows:

```

OVERFLIGHT DISTANCES

FIR      START                END                GC DISTANCE      AIRWAY DIST
          (NM)      (KM)              (NM)      (KM)
EGTT     N53212 W002164  N53285 W005300    116      214      119      221
EISN     N53285 W005300  N53000 W015000    342      634      344      637
EGGX     N53000 W015000  N52002 W029597    550     1019     551     1020

```

**Type 1** produces a cost group report which appears as:

COST GROUP		START	END	DISTANCE
CZDOM	CANADA DOMESTIC	N52002 W029597	N44255 W056086	1133 KM AWY
EG	UNITED KINGDOM	N53212 W002164	N53285 W005300	116 KM G/C
EG	UNITED KINGDOM	N53000 W015000	N52002 W029597	550 KM G/C
	Country Total			666 KM G/C
EI	IRELAND	N53285 W005300	N53000 W015000	342 KM G/C
KZCOE	US OCEANIC	N44255 W056086	N24031 W082273	1775 NM AWY

**Type 2** produces an FIR report plus a country report.

**Type 3** produces a special export format report which consists of a comma-separated list of the overflown FIRs or countries and their associated distances. It would produce an output such as:

```
FIR=>, EG, 63NM, LF, 1201KM, LS, 442NM, LO, 513NM
FIR=>, LI, 17KM, , , , , ,
```

**Type 4** produces an overflight charges report which appears as:

OVERFLIGHT CHARGES				
COST GROUP		UNIT RATE	CHARGE	CURRENCY
CZCOE	CANADA OCEANIC	1.00	146.82	CAD
EG	UNITED KINGDOM	83.35	548.52	ECU
EGGX	SHANWICK	60.00	60.00	GBP
EI	IRELAND	21.24	175.51	ECU
KZDOM	US DOMESTIC	78.90	71.80	USD
EGGXEI	SHANWICK AIR RADIO	36.00	36.00	IEP
TOTAL			931.34	GBP

## INTERLACE (Merging)

The INTERLACE command allows special point information to be interlaced into the waypoint information in the Nav block.

The parameters to this command are the type of information to be interlaced, i.e.

- ETOPS entry and exit points
- ETOPS equal time points
- FIR intersections
- Initial FIR information (only valid if FIRS parameter specified)
- Restrictive Airspace intersections

Note that, when special point information is interlaced, the Nav block lines for the *preceding* waypoint are reused but with the point item values substituted rather than the waypoint item values.

Item	Word Sequence	Time	Latitude/Longitude
Accumulated burn *	Waypoint identifier (see below)	Accumulated time *	Latitude
Accumulated burn including taxi fuel *	Magnetic variation	Time remaining	Longitude
Accumulated distance	Waypoint name (see below)		
Distance remaining	Flight level		
Trip fuel remaining *	Waypoint type character (see below)		
Basic fuel remaining *			
Total fuel remaining *			
Maximum allowable altitude on airway			
Minimum allowable altitude on airway			
Aircraft weight			

Items marked "\*" are only available for ETPs. All other items not in the table above will be blank .

The variables IDENT, NAME and WPT-TYPE have special values for interlaced points as shown below:

Interlace Type	IDENT	NAME	Waypoint Type
ETOPS	ETOPS	ENTRY or EXIT	R
ETPS	ETP n ("n" = ETP number)	(blank)	T
FIRS	[FIR]	(6-character identifier)	F
RAS	[RAS]	(10-character identifier)	X

## North AtlanticTracks (NATS)

The current NAT tracks can be output. If the NAT tracks have not been used in generating the plan then no output occurs.

The NAT tracks listing appears as follows:

Westbound NAT Tracks

-----

Valid From: 130905 1130

Valid To: 130905 1900

Msg Ident: 256

Track: A

Waypoints: MIMKU [N56000 W010000] SUNOT [N57000 W015000]  
 5820N [N58000 W020000] 5930N [N59000 W030000]  
 5840N [N58000 W040000] 5650N [N56000 W050000]  
 SCROD [N54370 W055519] VALIE [N53375 W058083]

Anchor: MORAG [N55512 W009300]

NARs: N242B N248C N250E N252E

---

```
Levels:      310 320 330 340 350 360 370 380 390

Track:      B
Waypoints:  NIBOG [N55000 W010000] PIKIL [N56000 W015000]
             5720N [N57000 W020000] 5830N [N58000 W030000]
             5740N [N57000 W040000] 5550N [N55000 W050000]
             OYSTR [N53520 W054580] STEAM [N52599 W057205]

Anchor:     NURSI [N54577 W009300]
NARs:      N224E N228B N230C N232E
Levels:     310 320 330 340 350 360 370 380 390
```

```
Track:      C
Waypoints:  MASIT [N54220 W012000] RESNO [N55000 W015000]
             5620N [N56000 W020000] 5730N [N57000 W030000]
             5640N [N56000 W040000] 5450N [N54000 W050000]
             CARPE [N53050 W054049] REDBY [N52150 W056361]

Anchor:     DEVOL [N53534 W010261]
NARs:      N202B N206C N210E
Levels:     310 320 330 340 350 360 370 380 390
```

.....Etc

## Status Message

The Status Message command outputs a message to the status window on the user's screen. It can take the values WRITE (output a message), BELL (output a message and sound the bell) or WAIT (output a message and wait for user acknowledgement).