# ACARS User Manual

## A330/A340


Description of AOC Screens

(including AIB description of ATC applications for digital-ATIS, Predeparture-)

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## 0. GENERAL DESCRIPTION

**ACARS** (**A**ircraft **C**ommunications, **A**ddressing and **R**eporting **S**ystem) is a two way Aircraft Ground Data Link.

It provides a permanent link to the **ETIHAD** home base either via VHF or through **SATCOM** (**Sat**ellite **Com**munications System) and allows the exchange of information relevant to your flight.

The ACARS Menu as described in Chapter 2 is customized to the specific requirements of ETIHAD and provides mainly the following functions:

- Automatic transmission of flight- and block times
- Free text messages
- Transmission of **ETIHAD FOL** (**F**light **O**perational **L**og) data
- Transmission of aircraft and engine related routine or non-routine maintenance data (e.g. engine readings, fault codes etc.)
- Weather information
- Transmission of pre-defined requests or messages

Chapter 3 describes how retrieve digital ATIS and predeparture clearances. This function is available for selected airfields only.

Chapter 4 contains the official guides issued by Gander and Shanwick for obtaining of Oceanic Clearances via Datalink.

Your comments and suggestions for improvement are highly appreciated! Please send them to:

***performance@etihad.ae***

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# 1. MAIN COMPONENTS

## 1.1. Airborne System

The core of the airborne Datalink System is the **ACARS** Management Unit, called **ATSU** (**A**ir **T**raffic **S**ervices **U**nit).
It is able to send reports automatically, upon ground request and/or upon pilot action.

It can also receive messages from the ground and route it to the appropriate addressee or user/system on board.

The two way communication is transmitted via VHF or, if out of range, automatically via **SATCOM.**

In addition to the typical **ACARS** functions described in chapter 2 the **ATSU** also provides the capability for ATC applications (e.g. Oceanic Clearance, Pre-Departure Clearance when available - see chapter 3 and 4). The ATSU is also a core component for **FANS** navigation.

The MCDU, the FWC and the printer provide the human-machine interface.

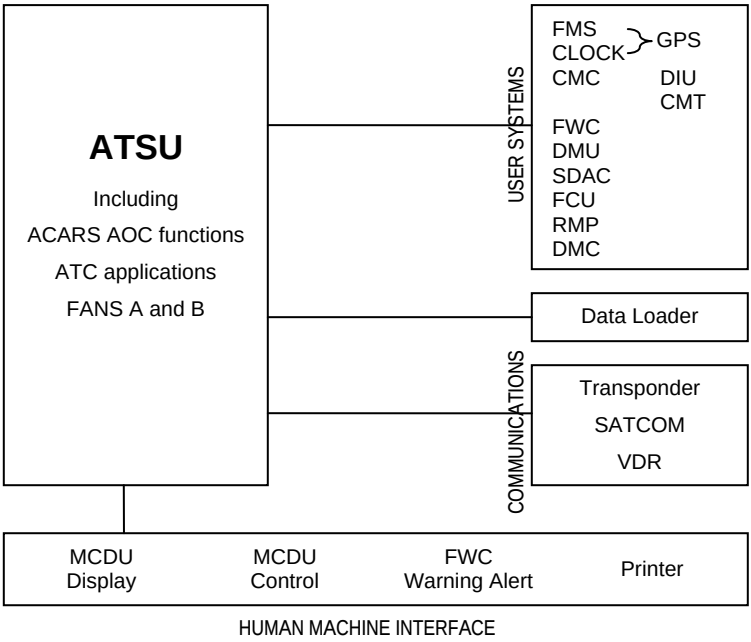



***Fig. 1: ATSwith Subsystems***

## 1.2. Ground System

The communication between aircraft and ground is routed via VHF or SATCOM through Remote Ground Stations (RGS) and a Host Processor.

The Host Processor provides formatting and distributing of the messages within the airline. It can also analyze and summarize information or generate reports.

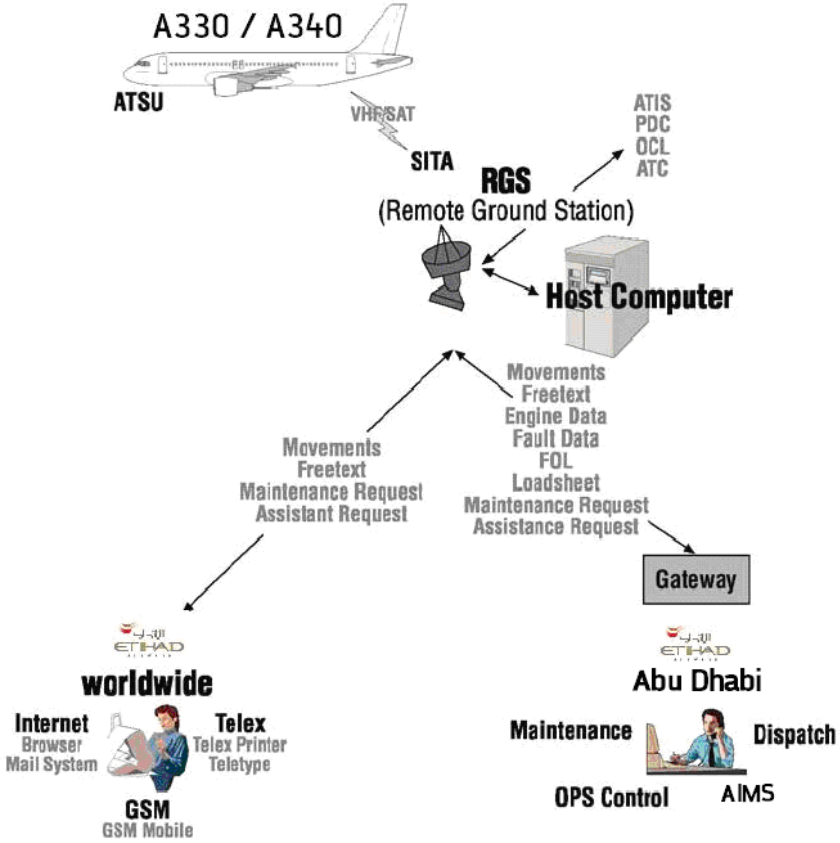



*Fig.: 1-02: Air-Ground Data Communication Platform.*

## 2. DESCRIPTION OF SCREENS

### 2.1. System Operation - MCDU General Operating and Display Rules

#### 2.1.1. Special Symbols or Displays

| | |
|---|---|
| □ | Indicates that this crew input data is mandatory for the ACARS to perform all its functions. |
| --- | Indicates that the data for this field is not valid or is being calculated by the ACARS (W). |
| [ ] | Indicates that this data may be optionally entered by the crew. Occasionally this data may be computed and entered by the ACARS. |
| ✳ | Indicates that pressing the adjacent LS key will cause a change to the system, also indicates that a downlink can be initiated. By pressing the adjacent LS key it will disappear at D/L initiation until the D/L has been sent, at that time it will reappear. |
| < or > | Indicates that pressing the adjacent LS key will call up a different page. |
| → | Indicates that NEXT PAGE is available. |

#### 2.1.2. Larger or small Fonts

Generally, data in label lines are displayed in small font, data in data lines are shown in large font when pilot entered or database defined.

Exceptions : Default values or ACARS predicted values are displayed in small fonts unless changed by the crew and thus displayed in large font.
If 2 data entries are dependent upon each other, the independent data is displayed in large font while the dependant data is displayed in small font.

#### 2.1.3. Colors

Colors usage attempts to satisfy two general philosophies:

1. Make the system self-teaching
2. Make certain data/fields easier distinguishable from others on the same page.

| MCDU Color | DATA |
|---|---|
| White (W) | titles, label lines, dashes, minor messages |
| Blue (B) | Modifiable data, selectable data, brackets, system default |
| Green (G) | Non-modifiable data or active data |
| Amber (A) | Mandatory data (boxes), pilot action required, major |

### 2.1.4. Clearing Data Fields

Pressing DEL key with an empty scratchpad results in CLR to be displayed then pressing a LS key adjacent to data field either results in clearing the data or reverting to the default or ACARS calculated value.
Scratchpad contents can be cleared by first and second CLR key push which will clear the last characters and third CLR key push will clear whole scratchpad line.

### 2.1.5. Automatic Clearing of Data

All data fields on all menus will be cleared or reset of the default value after the IN event is generated and the FOL Report is sent and printed.

### 2.1.6. Messages in Scratchpad

Messages are also displayed in the scratchpad line and are listed in order of priority.

NOT ALLOWED
Appears when attempting to enter data into a field which can not be updated.

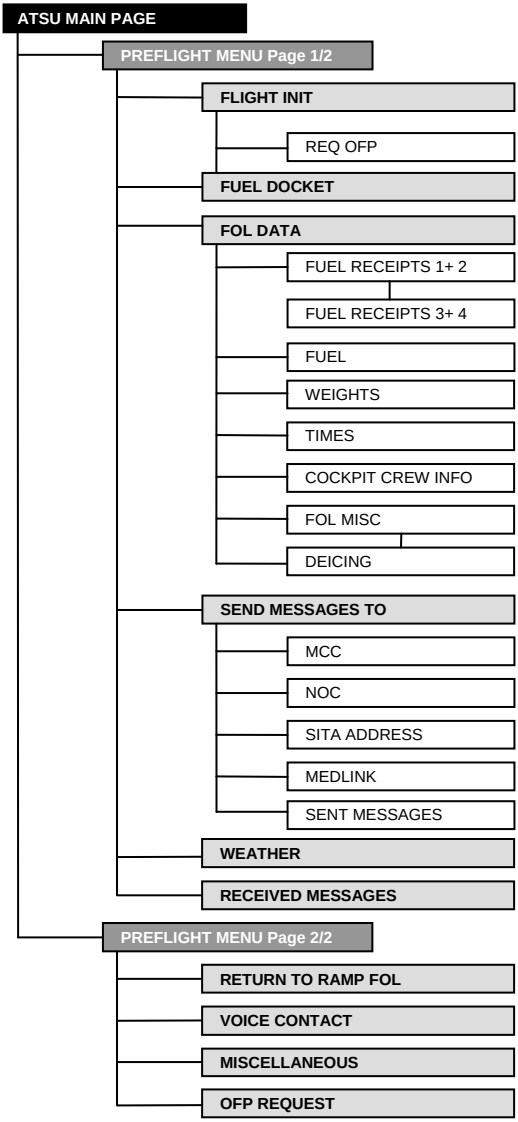
INVALID ENTRY
Data entered is not within the allowable range.

NO COM MSG NOT GEN (erated)
Will be displayed after a crew initiated downlink request with a non-queued message type and in a NO COMM situation.

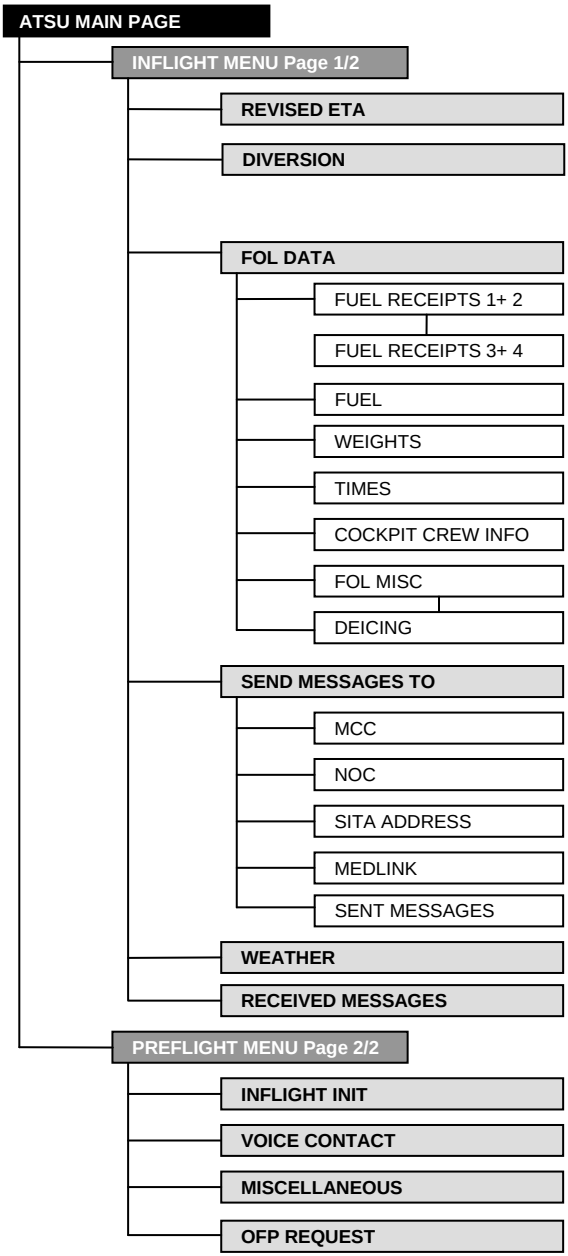
***Note:*** *NOT ALLOWED and INVALID ENTRY will be displayed for 5 seconds or until key is pressed.*

## 2.2. System Flow Charts

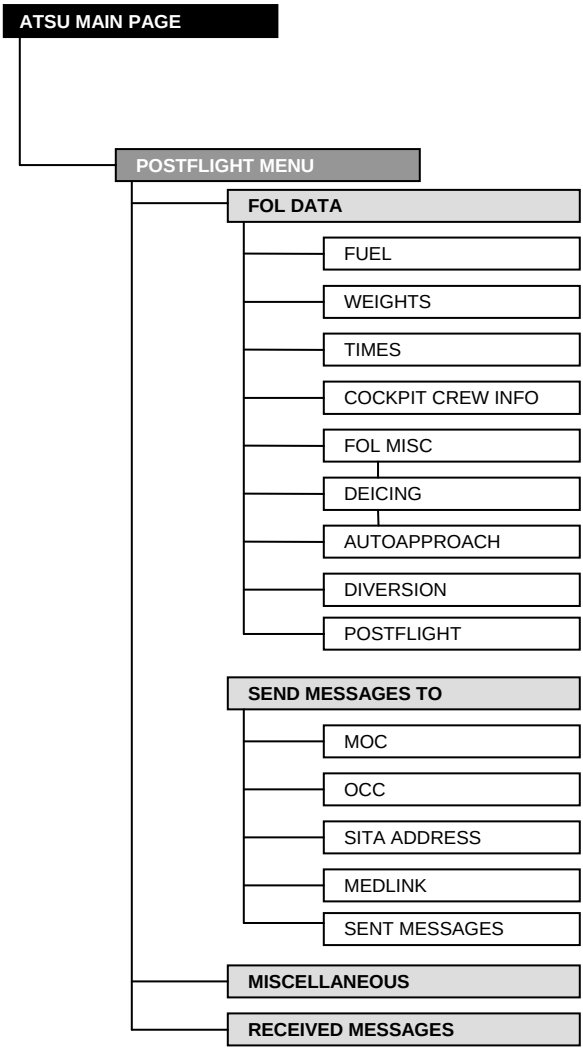
### 2.2.1. Preflight Menu



### 2.2.2. Inflight Menu

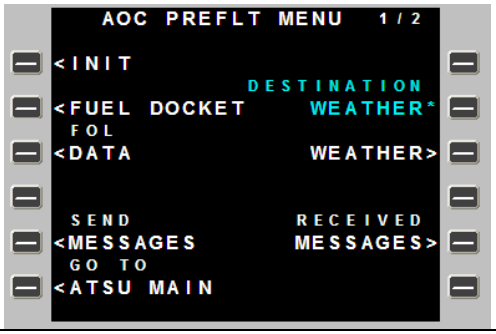


### 2.2.3. Postflight Menu



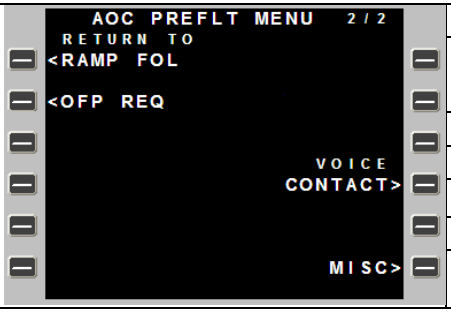
## 2.3. AOC Screen Description

### 2.3.1. Preflight Menu (1 / 2)



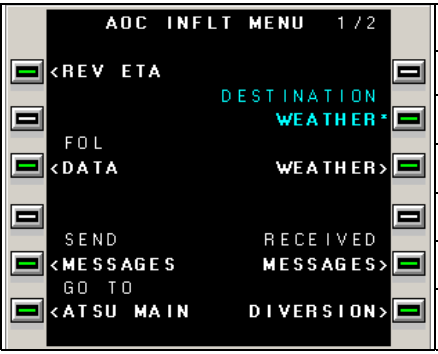

| | |
|---|---|
| | |
| Access to INIT page | |
| Access to FUEL DOCKET REQUEST | Request DESTINATION WX |
| Access to FOL DATA | Access to WX page |
| | |
| Send MESSAGES selection screen | Received MESSAGES |
| ATSU Menu (**ATC / AOC) | |

### 2.3.2. Preflight Menu (2 / 2)



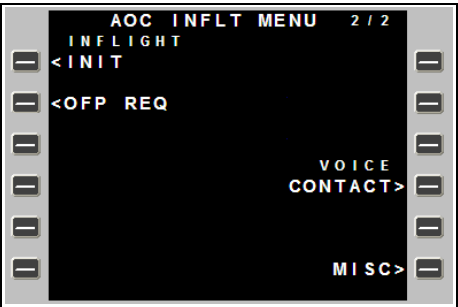

| | |
|---|---|
| | |
| Access to Return to RAMP FOL DATA | |
| Access to OFP Request | |
| | |
| | |
| | Access to Voice CONTACT page |
| | |
| | Access to MISCELLANEOUS |

### 2.3.3. Inflight Menu (1 / 2)



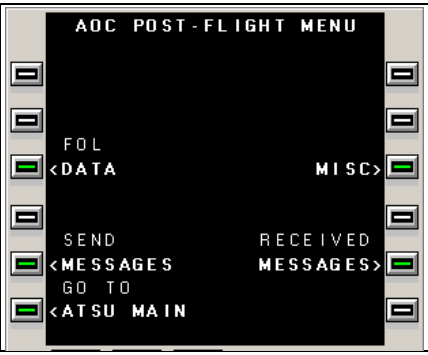

| | |
|---|---|
| | |
| Access to Revised ETA page | |
| | Request WX for DESTINATION |
| Access to FOL DATA | Access to WX page |
| | |
| Send MESSAGES selection screen | Received MESSAGES |
| ATSU Menu (**ATC / AOC) | access this page in case of a Diversion |

### 2.3.4. Inflight Menu (2 / 2)



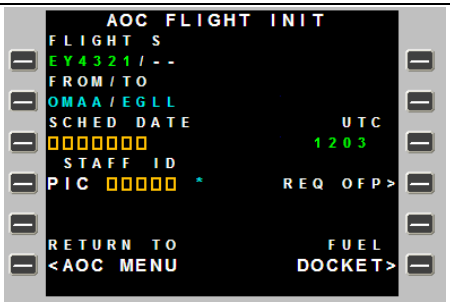

| | |
|---|---|
| Access to Inflight INIT page | |
| Access to OFP Request | |
| | |
| | Access to Voice CONTACT page |
| | |
| | Access to MISCELENOUS page |

### 2.3.5. Postflight Menu




| | |
|---|---|
| Access to FOL DATA menu | Access to MISCELENOUS page |
| Send MESSAGES selection screen | Received MESSAGES page |
| Access to ATSU Menu | |

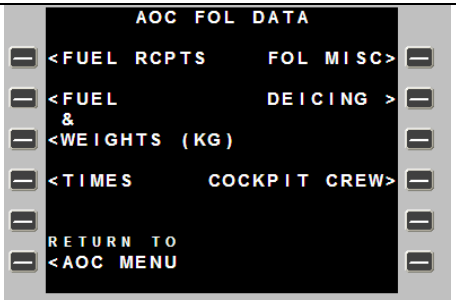
### 2.3.6. Flight Initialization




| | |
|---|---|
| Flight ID / Suffix (e.g. 1234/F) | |
| Origin and Destination | |
| Scheduled Date of Departure;mandatory | |
| Mandatory entry -> will initialize system | Access to Request OFP page |
| Access to AOC menu | Access to FUEL DOCKET page |

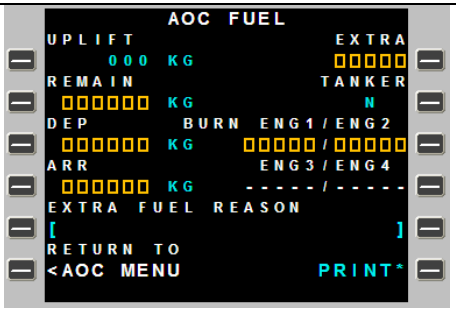
Once in the cockpit, one of the first flight crew actions is to request ACARS system initialization (e.g. by entering the company route and the ATS flight Id. into the FMS for instance and then complete AOC Application INIT Page . This "Init" informs the airline ground systems that the aircraft is being prepared for departure, and can trigger the uplink of automated data to FMS and printer. The menu will give feedback if the INIT data has not been entered correctly. If data correction is required, the user should enter correct scheduled date of departure first , then enter correct PIC. Pressing LSK L4 will trigger the send of the INIT message.

### 2.3.7. FOL Data




| | |
|---|---|
| Access to FUEL RECEIPTS | Access to FOL Miscellaneous page |
| Access to Fuel Page | Access to De-Icing page |
| Access to Fuel & Weight page | |
| Access to Times page | Access to Cockpit Crew page |

### 2.3.8. Fuel



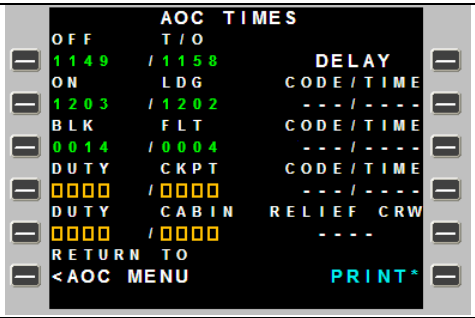

| | |
|---|---|
| Calculated Fuel Uplift in KG (from fuel receipts | Extra Fuel KG |
| Remaining Fuel in KG | Tankering Indicator. Default = N (Y = if Extra Fuel loaded for tankering reason) |
| Departure Fuel in KG | Engine 1&2 burnt Fuel after shutdown |
| Arrival Fuel in KG | Engine 3&4 burnt Fuel after shutdown |
| Extra Fuel Reason | |
| | Print screen |

### 2.3.9. Weights


| | |
|---|---|
| | Total Trafficload Weight in KG |
| | Zero Fuel Weight in KG |
| Trip Fuel from Flight Plan | Take Off Weight in KG |
| Aircraft Technical Log No for this flight.* | Total Freight Weight in KG |
| | |
| | Print screen |

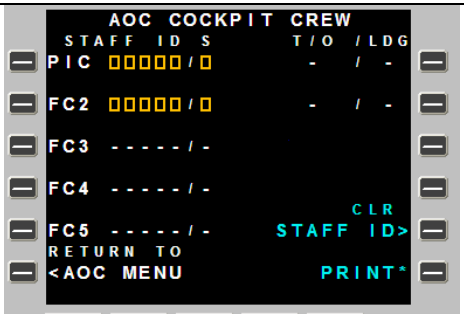
* This refers to the ATL page which reflects the current flight number, point of departure and destination, block and flight times.

### 2.3.10. Times




| | | |
|---|---|---|
| Block Times Not modifiable | | Delay Codes & Times |
| Flight Times Not modifiable | | (e.g. 89B/0145 = 1hr 45min) |
| calculated Block & Flight Times (automatic) | | |
| Cockpit Duty Times | | |
| Cabin Duty Times | | Time at controls by relief crew e.g. 0345 = 3hr |
| Access to AOC Main Menu | | Print screen |

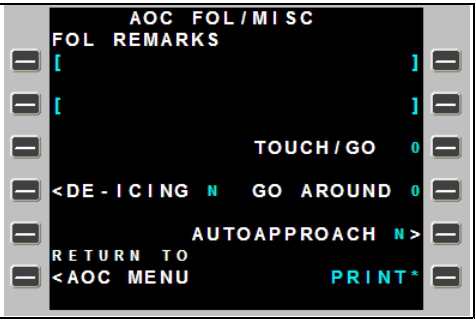
### 2.3.11. Cockpit Crew Info




| | | |
|---|---|---|
| PIC Staff ID / Seat Nbr. (S) e.g 123456/2 | | Takeoff- (T/O) and Landing- (LDG) indicators |
| Flight Crew 2 Staff ID / Seat No | | -> Enter D=Day / N=Night |
| Flight Crew 3 Staff ID / Seat No | | |
| Flight Crew4 Staff ID / Seat No | | |
| Flight Crew 5 Staff ID / Seat No | | clears all the ID codes |
| Access to AOC Main Menu | | Print screen |

Staff IDs and seat numbers will be cleared at end of flight.
Scratchpad Advisories will be displayed after takeoff if required Staff ID and seat numbers have not been entered.

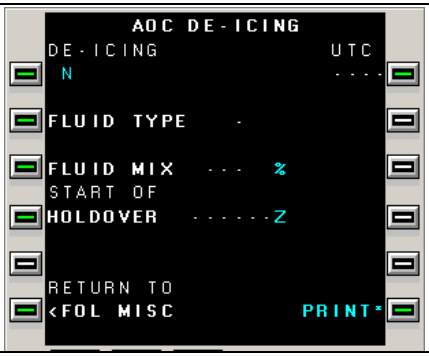
### 2.3.12. FOL MISC




| | | |
|---|---|---|
| FOL Remarks line 1 | | |
| FOL Remarks line 2 | | |
| | | Numbers of Touch and Go Default = 0 |
| access to DE-ICING page toggle indicator to Y/N | | Numbers of Go Arounds Default = 0 |
| | | access to AUTOAPPROACH page & toggle indicator Y/N |
| Access to AOC Main Menu | | Print screen |

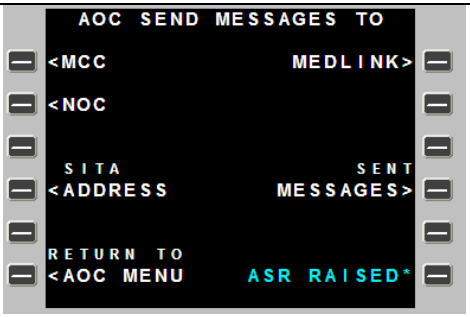
Ground services such as Pushback, GPU, ASU, Stairs, AirCon are not required for the electronic FOL.

## 2.3.13. DE-ICING




| | |
|---|---|
| | |
| Will toggleindicator to Y/N Default = N | By pressing this Key the actual Time (UTC) will be copied into the scratchpad |
| Code of Fluid Type (e.g. 4) | |
| Percentage of Fluid Mix (e.g. 075) | |
| Enter Time (UTC) when start of Holdover (e.g. 1245) | |
| | |
| Back to FOL Micellenous screen | Print screen |

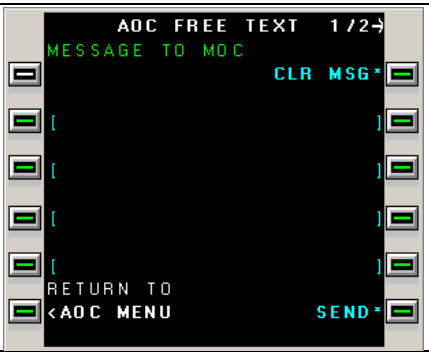
## 2.3.14. SEND MESSAGES




| | |
|---|---|
| | |
| Access to pre-addressed freetext Telex to MCC | Access to pre-addressed freetext Telex to Medlink |
| Access to pre-addressed freetext Telex to NOC | |
| | |
| Access to any free definable Telex Address | Access to list of sent messages |
| | |
| Access to AOC Main Menu | Send ASR RAISED message. |

## 2.3.15. MESSAGE TO MCC

### 2.3.15.1. MESSAGE TO MCC (1/2)




| | |
|---|---|
| | |
| | Clear message Lines |
| freetext Line1 | |
| freetext Line2 | |
| freetext Line3 | |
| freetext Line4 | |
| Access to AOC Main Menu | Send/Transmitt message |

2.3.15.2. MESSAGE TO MCC (2/2)

| | | |
|---|---|---|
| | AOC FREE TEXT 2/2→<br>MESSAGE TO MOC<br>PRINT* | |
| | | Print screen |
| freetext Telex Line4 | [ ] | |
| freetext Telex Line5 | [ ] | |
| freetext Telex Line6 | [ ] | |
| freetext Telex Line7 | [ ] | |
| Access to AOC Main Menu | RETURN TO<br><AOC MENU SEND* | Send/Transmitt message |

## 2.3.16. MESSAGE TO NOC

2.3.16.1. NOC (1 / 2)

| | | |
|---|---|---|
| | AOC FREE TEXT 1/2→<br>MESSAGE TO NOC | |
| Toggle title msg to "NOC" or "FLIGHT DISPATCH" | <TOGGLE TITLE CLR MSG* | Clear message Lines |
| freetext Line1 | [ ] | |
| freetext Line2 | [ ] | |
| freetext Line3 | [ ] | |
| freetext Line4 | [ ] | |
| Access to AOC Main Menu | RETURN TO<br><AOC MENU SEND* | Send/Transmitt message. |

NOC downlinks will contain a title on the first line of the message. LSK 1L will toggle the message title between "NETWORK OPS CTRL" and "FLIGHT DISPATCH" and blank (no title line)

2.3.16.2. NOC (2 / 2)

| | | |
|---|---|---|
| | AOC FREE TEXT 2/2→<br>MESSAGE TO NOC | |
| | PRINT* | Print message |
| freetext Telex Line4 | [ ] | |
| freetext Telex Line5 | [ ] | |
| freetext Telex Line6 | [ ] | |
| freetext Telex Line7 | [ ] | |
| Access to AOC Main Menu | RETURN TO<br><AOC MENU SEND* | Send message. |

## 2.3.17. MESSAGE TO SITA ADDRESS

2.3.17.1. SITA ADDRESS (1 / 2 )

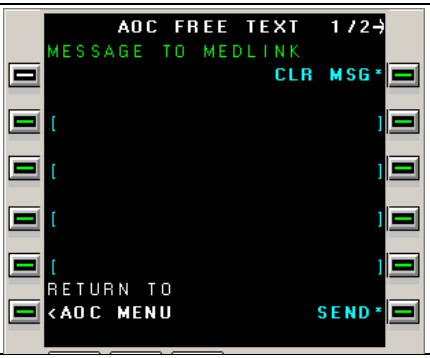
| | | |
|---|---|---|
| |  | |
| select any Telex-Address | | Clear message Lines |
| freetext Line1 | | |
| freetext Line2 | | |
| freetext Line3 | | |
| freetext Line4 | | |
| Access to AOC Main Menu | | Send/Transmitt message |

2.3.17.2. SITA ADDRESS (2 / 2 )

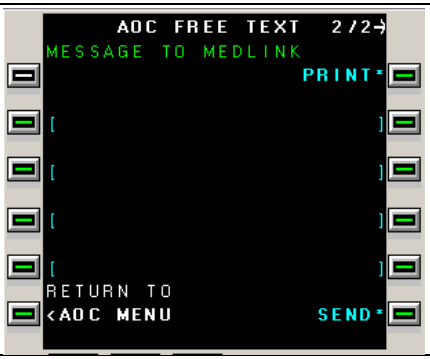
| | | |
|---|---|---|
| |  | |
| select any Telex-Address | | Print screen |
| freetext Telex Line4 | | |
| freetext Telex Line5 | | |
| freetext Telex Line6 | | |
| freetext Telex Line7 | | |
| Access to AOC Main Menu | | Send/Transmitt message |

## 2.3.18. MESSAGE TO MEDLINK (1 / 2)

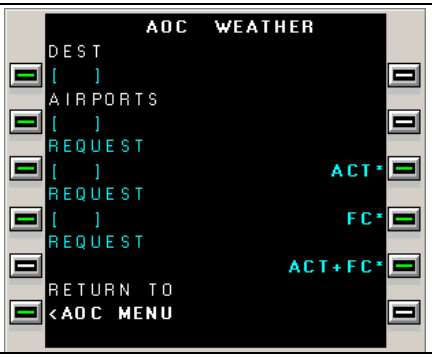
2.3.18.1. MEDLINK (1 / 2)

| | | |
|---|---|---|
| |  | |
| | | Clear message Lines |
| freetext Line1 | | |
| freetext Line2 | | |
| freetext Line3 | | |
| freetext Line4 | | |
| Access to AOC Main Menu | | Send/Transmitt message |

2.3.18.2. MEDLINK (2 / 2)

| | | |
|---|---|---|
| |  | |
| | | Clear message Lines |
| freetext Telex Line4 | | |
| freetext Telex Line5 | | |
| freetext Telex Line6 | | |
| freetext Telex Line7 | | |
| Access to AOC Main Menu | | Send/Transmitt message |

## 2.3.19. Weather

| | | |
|---|---|---|
| |  | |
| Destination ex FMGC or select ICAO 4-Letter Code | | |
| select ICAO 4-Letter Code | | |
| select ICAO 4-Letter Code | | Request desired WX info as indicated |
| select ICAO 4-Letter Code | | |
| | | |
| Access to AOC Main Menu | | |
| | **Note:** ATIS can be retrieved via ATC function | |

## 2.3.20. RETURN TO RAMP FOL

| | | |
|---|---|---|
| | AOC FOL DATA POSTFLT | |
| Access to FUEL page | <FUEL FOL MISC> | Access to FOL Miscellaneous page |
| Access to Weights page | <WEIGHT (KG) DE-ICING> | Access to De-Icing page |
| Access to Times page | <TIMES | |
| Access to Cockpit Crew page | <CKPIT CREW | |
| | PRINT FOL SUMMARY * | to Print an advanced copy or any copies of the FOL summary |
| Access to AOC Main Menu | RETURN TO <AOC MENU SEND FOL & END FLT* | Transmit all relevant FOL data of completed flight. |

## 2.3.21. VOICE CONTACT

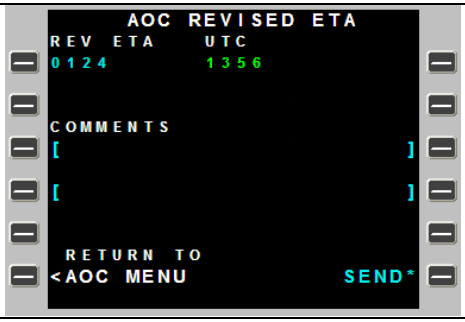
| | | |
|---|---|---|
| | AOC VOICE CONTACT REQ<br>AIRLINE MAINTENANCE | |
| | | |
| Put desired Frequencies<br>OR | ON VHF FREQ<br>[ ]<br>ON HF FREQ<br>[ ] | |
| if SATComm preferred -> set to YES | ON SATCOM: NO<br>*SET YES | |
| | | |
| Access to AOC Main Menu | RETURN TO<br><AOC MENU SEND* | Send/Transmitt request |

## 2.3.22. Miscellaneous (**)

| | | |
|---|---|---|
| | AOC MISCELLANEOUS | |
| | PART NUMBERS | |
| | <CONFIGURATION | |
| | | |
| | 0001 SEL 429 | |
| | <STATUS RCV> | |
| | CMC/CFDIU | |
| | <PROG | |
| | PARAMETER DISPLAY> | |
| | RETURN TO | |
| Access to AOC Main Menu | <AOC MENU | |

(** Only for Maintenance purposes)

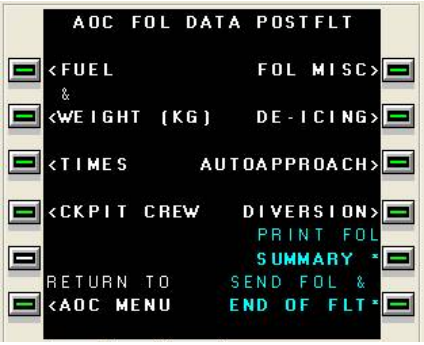
### 2.3.23. REVISED ETA

| | | |
|---|---|---|
| |  | |
| Revised ETA (modifiable) | | |
| | | |
| Freetext comments line 1 | | |
| Freetext comments line 2 | | |
| | | |
| Access to AOC Main Menu | | SEND revised ETA message |

### 2.3.24. DIVERSION

| | | |
|---|---|---|
| |  | |
| Diversion Code (according OMA 8.1.11.1.2) | | ETA at DIVERSION DEST |
| Diversion Destination | | |
| | | |
| Freetext comments line 1 | | |
| Freetext comments line 2 | | |
| Access to AOC Main Menu | | SEND DIVERSION message |

### 2.3.25. FOL DATA POSTFLIGHT

| | | |
|---|---|---|
| |  | |
| Access to FUEL page | | Access to FOL Miscellaneous page |
| Access to Fuel & Weight page | | Access to De-Icing page |
| Access to Times page | | Access to Autoapproach page |
| Access to Cockpit Crew page | | Access to Diversion page |
| | | to Print an advanced copy or any copies of the FOL summary |
| Access to AOC Main Menu | | Send/Transmitt all relevant FOL data of completed flight. |
| | **Note:** When transmission is complete system will reset to pre-flight menu | |

### 2.3.26. AUTOAPPROACH

| | | |
|---|---|---|
| | AOC AUTOAPPROACH<br>AUTOAPPROACH S/U<br>N S=SUCCESSFUL -<br>U=UNSUCCESSFUL<br>DUE TO: -<br>1=TECHNICAL<br>2=ATC<br>3=GND EQUIPMENT<br>4=OTHER<br>PLS SPECIFY<br>[ ]<br>RETURN TO<br><FOL MISC PRINT* | |
| Autoapproach indicator ( toggle N / Y) | | Successful (S) or Unsuccessful (U) |
| | | Reason Code if Unsuccessful (U) |
| | | |
| | | |
| freetext Line for further specification | | |
| Access to FOL Data menu | | Print screen |

### 2.3.27. POSTFLIGHT DIVERSION

| | | |
|---|---|---|
| | AOC DIVERSION<br>DIV CODE UTC ETA<br>--- 1359 0124<br>DIVERTING TO<br>OMAA<br><br>COMMENTS<br>[ ]<br>[ ]<br>RETURN TO<br><AOC MENU SEND* | |
| Diversion Code (according OMA 8.1.11.1.2) | | ETA at DIVERSION DEST |
| Diversion Destination | | |
| | | |
| Freetext comments line 1 | | |
| Freetext comments line 2 | | |
| Access to AOC Main Menu | | SEND DIVERSION message |

### 2.3.28. FUEL DOCKET

| | | |
|---|---|---|
| | AOC FUEL DOCKET<br>SCHED DATE PIC<br>□□□□□□□ □□□□□<br>RAMP FUEL TRIP FUEL<br>□□□□□□ KG □□□□□□ KG<br>TAXI FUEL RTOW<br>□□□□ KG □□□□□□ KG<br>EET CREW<br>□□□□ □□□□□<br>SUPP INFO PRINT &<br>[ ] SEND*<br><BACK PRINT* | |
| Enter SCHEDULED departure date | | Enter PIC staff id |
| Enter RAMP FUEL | | Enter Trip Fuel |
| Enter TAXI FUEL | | Enter Restricted Takeoff Weight |
| Enter Estimate Enroute Time | | Enter Crew Config e.g. 2/12 |
| Enter Supplementary Info (18 characters) | | PRINT & SEND by ACARS |
| | | PRINT ONLY (e.g. if NOCOMM) |

FUEL DOCKET page can be used to enter data for the fuel docket to be printed and handed to the Turnaround Supervisor (TAS) or to be sent via ACARS to Load Control for the appropriate station. This can then be used to complete the FINAL LOADSHEET for uplink by ACARS.

### 2.3.29. REQUEST OFP

| | | |
|---|---|---|
| | AOC OFP REQUEST<br>FLIGHT ID ORIGIN<br>EY4321/-- OMAA<br>SCHED DATE DESTINATION<br>DDMMMYY EGLL<br>FREE TEXT LINE 1<br>[ ]<br>FREE TEXT LINE 2<br>[ ]<br><BACK SEND* | |
| Enter SCHEDULED departure date if required | | Enter ORIGIN if required |
| Enter FREE TEXT comment | | Enter DESTINATION if required |
| Enter FREE TEXT comment | | |
| Enter Supplementary Info (18 characters) | | |
| | | SEND OFP REQUEST |

### 2.3.30. FUEL RECEIPTS 1&2

| | | |
|---|---|---|
| | AOC FUEL RECEIPTS 1+2<br>FUEL RCPT 1 DELIVD<br>[ ] 000000<br>FUEL RCPT 2 DELIVD<br>[ ] 000000<br>DENSITY<br>0.800 TOTAL 0LT<br>UNITS<br>LT UPLIFT 000KG<br>ADD MORE RCPTS><br><AOC MENU | |
| Enter Fuel Receipt No 1. WITHOUT SUPPLIER | | Enter amount of delivery 1 |
| Enter Fuel Receipt No 2. WITHOUT SUPPLIER | | Enter amount of delivery 2 |
| Enter density in format 0800 with no decimal | | Calculated total of 1+2+3+4 (see next page) |
| Press to toggle LT / UG (Litres / US Gallons) | | Calculated uplift (total * density ) |
| | | Add receipts 3 & 4 |

The System will calculate the Total delivered by summing the 4 delivered quantities for each uplift. The system will calculate the Uplift using the Density, Units and Total values. Density must always be in KG/LT (Kilogrammes per Litre).
The Total field may be overwritten by the crew. In this case the entered value will be used to auto calculate the Uplift.
The Uplift field may be overwritten by the crew. In this case the calculated value will not be displayed.
The Uplift field from this page is also used and editable in the AOC FUEL page.

### 2.3.31. FUEL RECEIPTS 3&4

| | | |
|---|---|---|
| | AOC FUEL RECEIPTS 3+4<br>FUEL RCPT 3 DELIVD<br>[ ] 000000<br>FUEL RCPT 4 DELIVD<br>[ ] 000000<br>DENSITY<br>0.800 TOTAL 0LT<br>UNITS<br>LT UPLIFT 000KG<br>BACK><br><AOC MENU | |
| Enter Fuel Receipt No 3. WITHOUT SUPPLIER | | Enter amount of delivery 3 |
| Enter Fuel Receipt No 4. WITHOUT SUPPLIER | | Enter amount of delivery 4 |
| Enter density in format 0800 with no decimal | | Calculated total of 1+2+3+4 (see previous |
| Press to toggle LT / UG (Litres / US Gallons) | | Calculated uplift (total * density ) |
| | | Back to receipts 1 & 2 |

## 3. ATSU HOSTED ATC APPLICATION (STANDARD)

### 3.1. AEEC623

The AEEC623 specification defines the application text formats for character-oriented Air Traffic Services messages that can be transmitted over the ACARS data link.

The ATS623 applications (Airbus implementation of AEEC623) **are not FANS applications,** but are considered as such because using the DCDU/MCDU to exchange messages.

As a first step to a greater use of data link applications, and pending for a greater maturity of standardised services, Airbus has decided to implement only three AEEC623 applications:

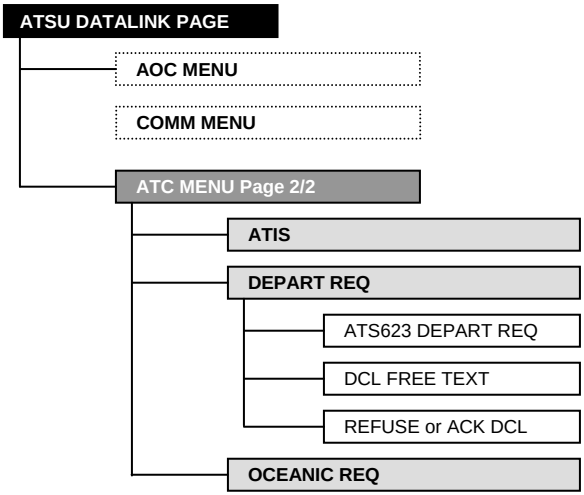
- **Departure Clearance (DCL)**
- **Oceanic Clearance (OCL)**
- **Digital – Automatic Terminal Information Service (d-ATIS)**

These applications will enhance the existing customised AOC applications. Transaction messages will no more go through the airline host but directly from the ATC to the aircraft.

Operating these applications is done with both the DCDU and the MCDU.
Although very similar to the current FANS A functions, differences exist and must be kept in mind:

- ATS623 exchanges do not require a permanent connection between the ground and the aircraft systems
- ATS623 exchanges have been built upon voice exchanges: crew request, ground clearance, crew read-back and ground confirmation.
- ATS623 exchanges do **not** allow for any **data-link refusal** of a clearance, however, it is possible to renegotiate
- No Time stamp information are available for ATS623 exchanges.

## 3.2. ATC Menu



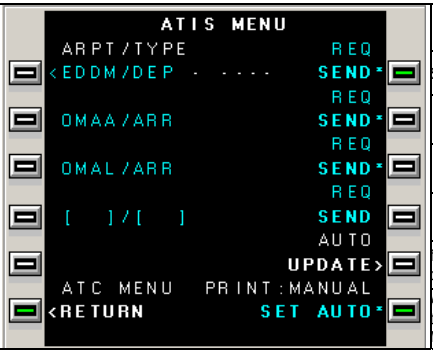

**ARINC 623 ATC applications Menu (page 2 / 2)**

| | | |
|---|---|---|
| | ATC MENU 2/2<br>----- ATS623 PAGE ------<br><DEPART REQ ATIS> | |
| Access to Departure Clearance Request Page | | Access to digital ATIS Request Page |
| Access to Oceanic Clearance Request Page | <OCEANIC REQ | |
| | | |
| | | |
| | ATSU DLK<br><RETURN | |
| ATSU Menu) | | |

### 3.2.1. Digital-ATIS (d-ATIS)

Traditionally, ATIS (Automatic Terminal Information Service) messages are broadcasted by each airport on a special frequency as a continuous voice transmission. Now, ATIS is becoming available over datalink at more and more airports.

**ATIS Menu**

| | | |
|---|---|---|
| |  | |
| select ICAO 4-Letter Code and desidered d-ATIS type | | Send/Transmitt request ** |
| | | |
| | | |
| | | |
| | | for automaticaly d-ATIS updates request |
| Access to ATC Menu | | AUTO Mode selection Key; to receive d-ATIS on printer or MCDU |

Examples of D-ATIS from San Francisco Airport

2 .N648UA RA L SFO ATIS INFO K 0150Z.
16004KT 10SM OVC250 13/06 A3033. SIMO CVA IN USE. ARRIVALS EXPECT RWYS 28L, 28R. DEPG RWYS 1L, 1R. NOTAMS... ONE HUNDRED SIXTY-FIVE FOOT HIGH PILE RIVER OPERATING NORTH OF RWY 28R NEAR TAXIWAY KILO ....ADVS you have INFO K.

### 3.2.2. Airport availability

**Please Note:**
Digital ATIS is only available at selected airports that offer this service.

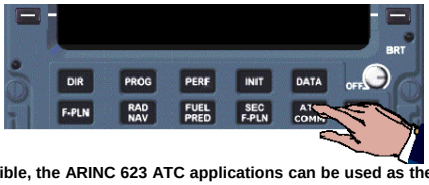
### 3.3. Pre-Departure Clearance (PDC)

Pilots are now able to request a (Pre-) Departure Clearance via datalink in A623 format, on more and more airports (if ATC equipped). The clearance is uplinked to the aircraft when the ATC system has processed it; the pilot acknowledges it electronically.

On FANS A+ equipped aircraft, the clearances are displayed/answered on the **DCDUs**.

Pushback and startup clearances along with taxi clearance can also be requested and obtained from ATC (if ATC equipped).

## 3.4. Departure Clearance (DCL)




The DCL application can also be reached directly by selecting the ATC COMM hardkey

**** If terminal service is avalaible, the ARINC 623 ATC applications can be used as they are, no prior connection with the ground is required.**

The flight number is automatically set by the system (ex FMS) and it is not modifiable

Origin / Destination

Gate Number (optional)

Free Text Line(s)

Access to ATC Menu


Aircraft Type

ATIS code

Free Text Line(s)
To add more free text, select the prompt MORE FREE TEXT

As all mandatory fields are completed, the star (*) appears in front of REQ DISPL, indicating that this function is available

### DEPARTURE CLEARANCE (MORE FREE TEXT)

The first line of free text is already displayed

Free Text Lines


**) It is possible to display the clearance request on the DCDU also from this page:
select REQ DISPL.

**) The Departure Clearance request is displayed also on the DCDU. At it takes more than 1 page, page 1/2 is indicated.

It is not possible to send the message before all pages have been visualised or printed.


Note: It is not possible to send the message before all pages have been visualised or printed:

select PGE+ to see next page


Page 2/2 is displayed and it is now possible to send the message

select SEND.

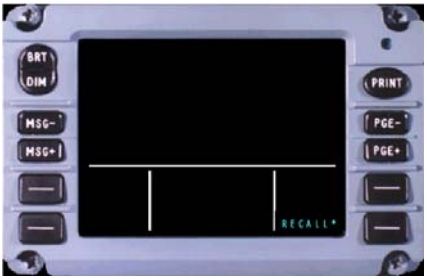

The message switches to green inverse video, indicating that is has been sent. The first page is displayed, with the SENDING indication


It is now possible to close the message. Closing the message stores it in the Message Log.

The SENT information indicates that the message has been received by the ground network.

Select CLOSE.

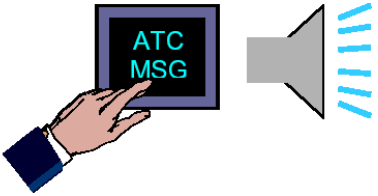
The default screen is displayed, and the previous message can be recalled if required.




Select RECALL.

## DEPARTURE CLEARANCE RECEIVED MESSAGE

The flashing "ATC message" pushbuttons and the aural warning (telephone ring) indicate that a message from the ATC has been received!




extinguish the alert by pushing the ATC MSG pushbutton.

The received message (departure clearance) is displayed on the DCDU. As this new message contains several pages, "PGE 1/2" is displayed.


Departure clearance status is "OPEN" if no answer has been prepared.

To read the following pages, select PGE+.

Note:
It is not possible to select ACK before the whole clearance has been read, or printed.


The clearance is displayed with the 'OPEN' status, and the ACK and REFUSE functions are proposed:

to accept the clearance, select ACK.


The message is displayed in the 'ACK' state.

To send the DCL readback, select SEND.


Temporarily the information 'SENDING' is displayed


When the ground service provider acknowledges reception of the DCL readback, the information 'SENT' will be displayed.

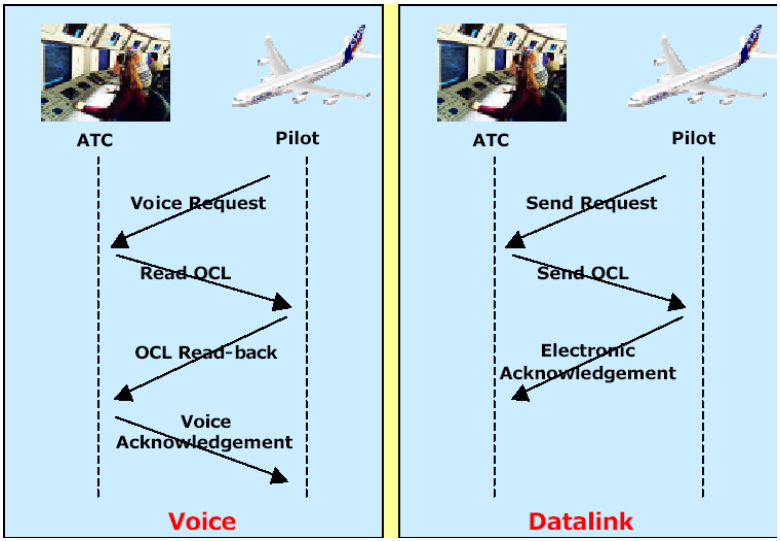
-> The flightdeck is informed that a confirmation of this DCL readback must follow

When the confirmation of the DCL readback arrives, it is indicated to the crew with the visual and aural alerts.


Extinguish the alerts by pressing the ATC MSG pushbutton.


When the departure clearance is confirmed, the message can be closed by pressing CLOSE (- > the message will be stored)

## 4. OCEANIC CLEARANCES (OCL)




- Voice versus Datalink-based oceanic clearances -

### Oceanic Clearance Request


Entry-Point; e.g. OMOKO or 4215N 01500W.

Requested Mach Number

Free Text Line / Remarks, begin with RMK, e.g. RMK/2nd F330 max. F370

Access to ATC Menu

Select ATC center (*)

ETO at Entry Point

Requested Flight Level

To add more free text, select the prompt MORE FREE TEXT

Send/Transmitt request **

(*) e.g. EGGX for SHANWICK / CYQX for GANDER / KZWY for NEW YORK)

Free Text Line(s)
To add more free text, select the prompt MORE FREE TEXT


Return to OCL Request Page

Send/Transmitt request **

On FANS A+ equipped aircraft, the OCL is also displayed on the DCDUs and can be printed.


The clearance is displayed with the 'OPEN' status, and the ACK and REFUSE functions are proposed:

to accept the clearance, select ACK.

## 5. ABBREVIATIONS

| | |
|---|---|
| **ACARS** | Aircraft Communications Addressing and Reporting System |
| **AOC** | Airline Operational Control |
| **ATSU** | Air Traffic Services Unit<br>Computer that hosts AOC and Router functions manages air/ground communication for peripheral onboard systems (e.g. FMC, CMC); and support for ATC datalink |
| **ATS623** | Airbus implementation of AEEC 623 |
| **CMC** | Central Maintenance Computer |
| **CMT** | Cabin Management Terminal |
| **DIU** | Digital Interface Unit |
| **DMC** | Display Monitoring Computer |
| **DMU** | Data Management Unit |
| **FANS** | Future Air Navigation System |
| **FCU** | Flight Control Unit |
| **FWC** | Flight Warning Computer |
| **HFDR** | HF Data Radio |
| **MCDU** | Multi Purpose Control Display Unit<br>Display used as pilot interface for various different aircraft computers like ATSU, Flight Management Systems, Centralized Maintenance Computer, SATCOM systems etc. |
| **OCL** | Oceanic Clearance |
| **PDC** | Pre-departure Clearance |
| **RGS** | Remote Ground Station<br>Station set up by a service provider (ARINC, SITA, AVICOM etc.) to link the aircraft with the host computer. |
| **RMP** | Radio Management Panel |
| **SDAC** | System Data Acquisition Concentrator |
| **VDR** | VHF Data Radio |

**INTENTIONALLY LEFT BLANK**