

## 14. Coordination and Communication

### *Possible reasons*

Air Traffic Control is impossible without coordination. It begins when the pilot requests his initial clearance and ends with the taxi to the gate at the destination. Generally, each ATS unit needs to coordinate with every adjacent unit. They need to coordinate anything deviating from the flight plan or standard procedures. They need to coordinate special requests, such as directs, requests for a certain runway, arrange a sequence of the aircraft, coordinate a specific FL of entering or existing a sector, etc. When it comes to runway changes, all involved stations need to find the perfect moment to perform the change – that’s where coordination becomes vital.

### 14.1 How to do a transfer (“handoff”)

A handoff is split into 3 parts:

- Transfer of details
- Transfer of control
- Transfer of communication

*Transfer of details* is the starting point. You need to inform the receiving controller (ATS station) of the coming traffic. All information shall be shared and agreed. Any requests from both controllers are stated, items differing from the flight plan are communicated.

*Transfer of control* is the second part. The transfer should be done shortly before the aircraft reaches the point of transfer. This may be the sector boundary (standard) or any other defined point (as stated in letter of agreement). When the receiving controller accepts the traffic, only the *transfer of communication* is left.

*Transfer of communication* is the phrase you tell the aircraft to call the next controller on the designated frequency.

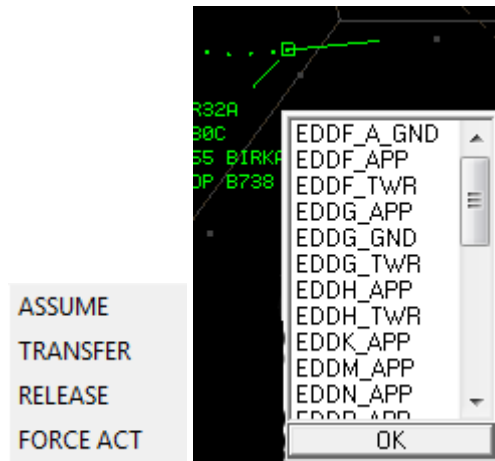
#### Recommended Practices

##### *Transfer of details*

Differing to the real world, you can assume the controller already knows about the traffic. Since no correlations of squawk codes and flight plans are done at IVAO, all flight plans are visible. Only information not stated in the flight plan, or deviating from the flight plan, need to be provided.

##### *Transfer of control*

This part is easy: shortly before the aircraft reaching the agreed point of transfer, right click the A/C, select “Transfer” and select the next ATS station.



When the next ATS station accepted the aircraft, tell the pilot to contact the ATS station on the designated frequency. This is the *transfer of communication*.

*Phraseology:*

“HHI5203, contact Langen Radar on 128.550.”

*Note: As a remainder from the old days quite often the term R/T is used which is derived from Radio Telephony. It implies a clear double sense, namely for the use of radio and telephone alike.*

## 14.2 Introduction

In the early days of on-line flying with ATC, text was the only method of communication.

Most people's typing was slow, mistakes were common and although some shortcuts could be selected, no one was really satisfied with the way it worked.

Nowadays, thanks to the latest developments in technology and a core of highly skilled Software Developers within IVAO, frequency selection can be done swiftly without "endangering" any virtual life.

Although slow and inefficient, some people still use text for a number of reasons:

- a newcomer on IVAO may not feel sufficiently confident to speak on a "frequency"
- someone may not want to make "noise" and disturb his/her relatives or neighbours
- Some people may have a broken microphone but can't miss IVAO while they are waiting to buy a new one...

Whatever reason people have to use text, they still have the right to do so and to receive ATC service!

BUT.... there is a *HUGE* drawback to this...

**Most of the communication between Pilots and ATC is done by voice.**

Text can be easily overlooked by ATC when busy with other traffic and this could cause some delay before you may receive a clearance.

**Text-Text communication is slow, inefficient and demands particular effort from the controller.**

In a busy environment you will be his nightmare for several reasons:

- while typing your clearance or instruction, an Air Traffic Controller is not able to concentrate on his traffic
- Your read back via text is relatively slow and by the time you have started to do what ATC wanted, it may be too late...
- If you or the controller made a mistake, everything will have to start over again from the beginning and the situation will rapidly get worse (frustrating for both of you!)
- Just imagine what will happen if he urgently needs to give you traffic information...

If you use Text-Text as a controller, you won't make people happy either! Here are some reasons why:

- while typing in the IvAp text-box, the pilot will not be able to make any inputs in his FlightSim
- If at some point he forgets to click in the IvAp-textbox to type a message, his keyboard commands will make his FlightSim do all kinds of things he didn't intend to and his flight may end in a crash!
- in situations where the pilot needs instruction or clearance urgently, such as a landing clearance in short final, by the time you have typed and sent his clearance or instruction and he has typed the read back and complied with it... it could be much too late
- A pilot who is flying his aircraft manually will flip up-side-down in no time if he has to type while in a turn or executing delicate manoeuvre!
- Any other reason you can think of...

To make everything as enjoyable as possible for everyone, while keeping things practical and somewhat realistic, Text-Voice Communication is the best alternative to Text-Text Communication.

### **14.3 Guidelines**

**Text-Voice Communication means that either a Pilot or an ATC uses text, whilst the other people on the same frequency use Voice.**

This method is designed to reduce the "lag" (reaction time) between an instruction, clearance or request and their compliance or reply.

**If the reason you want to use text is for "noise abatement" at home, use a headset to listen to Pilots or ATC.**

Use the abbreviations from [Text Communication Abbreviations](#) as much as possible.

The **main way of passing messages** between pilots and controllers is via **two-way radio communication**. **Standard words** are used **to avoid confusion and misunderstandings** for the safe conduct of flights.

Or like ICAO defines it: *The information and instructions transmitted are of vital importance in the safe and expeditious operation of aircraft. Incidents and accidents have occurred in which a contributing factor has been the use of non-standard procedures and phraseology. The importance of using correct and precise standardized phraseology cannot be overemphasized.*

ICAO has defined a transmitting technique that it is also of great importance in our virtual world.

To be able **to have a clear communication**:

1. **before transmitting, listen out** on your frequency to make sure that there is no other conversation on-going at that moment;
2. **know how to use your microphone**, hereby paying attention to the distance between mouth and microphone and the volume of your voice;
3. use a normal conversational tone, **don't speak too loud or too slow** and **speak clearly and not too fast**;
4. a very **short pause before and after numbers** will make it easier to understand them;
5. **avoid hesitations** and **unnecessary interruptions** or sounds such as **"eh" and "yeah"**;
6. **Press the transmit switch before you start speaking** and keep it pressed **until the full message is completed**.

Many of these points are of importance in our virtually world alike and sometimes even more, because of the limitations we have in comparison with real life.

## 14.4 The Spelling Alphabet

The NATO phonetic alphabet is a common name for the radiotelephony spelling alphabet of the International Civil Aviation Organization (ICAO), which assigned words to the letters of the English alphabet so that critical combinations of letters could be pronounced and understood by aircrew and air traffic controllers regardless of their native language.

| Character | Morse Code | Telephony | PHONIC (PRONUNCIATION)          |
|-----------|------------|-----------|---------------------------------|
| A         | • –        | Alfa      | (AL-FAH)                        |
| B         | – • • •    | Bravo     | (BRAH-VOH)                      |
| C         | – • – •    | Charlie   | (CHAR-LEE) or (SHAR-LEE)        |
| D         | – • •      | Delta     | (DELL-TAH)                      |
| E         | •          | Echo      | (ECK-OH)                        |
| F         | • • – •    | Foxtrot   | (FOKS-TROT)                     |
| G         | – – •      | Golf      | (GOLF)                          |
| H         | • • • •    | Hotel     | (HOH-TEL)                       |
| I         | • •        | India     | (IN-DEE-AH)                     |
| J         | • – – –    | Juliet    | (JEW-LEE-ETT)                   |
| K         | – • –      | Kilo      | (KEY-LOH)                       |
| L         | • – • •    | Lima      | (LEE-MAH)                       |
| M         | – –        | Mike      | (MIKE)                          |
| N         | – •        | November  | (NO-VEM-BER)                    |
| O         | – – –      | Oscar     | (OSS-CAH)                       |
| P         | • – – •    | Papa      | (PAH-PAAH)                      |
| Q         | – – • –    | Quebec    | (KEH-BECK)                      |
| R         | • – •      | Romeo     | (ROW-ME-OH)                     |
| S         | • • •      | Sierra    | (SEE-AIR-RAH)                   |
| T         | –          | Tango     | (TANG-GO)                       |
| U         | • • –      | Uniform   | (YOU-NEE-FORM) or (OO-NEE-FORM) |
| V         | • • • –    | Victor    | (VIK-TAH)                       |
| W         | • – –      | Whiskey   | (WISS-KEY)                      |
| X         | – • • –    | Xray      | (ECKS-RAY)                      |
| Y         | – • – –    | Yankee    | (YANG-KEY)                      |
| Z         | – – • •    | Zulu      | (ZOO-LOO)                       |

**Note:** This codification is to be used with voice communications only; it is quite useless when using text mode.

## 14.5 Aircraft Callsigns

- On initial contact say the complete callsign - always use full callsigns when establishing communications
- After good communication has been established the abbreviated callsign may be used when initiated by ATC
- Always pronounce each digit separately
- Use the company radio callsign if possible (as shown on the flight strip in IvAc)
- If company radio callsign is unknown, spell the callsign using the NATO Alphabet
- Start with a call and a reply to establish contact, except when it is certain that the call will be received. After contact has been established, further identification or call until termination of the contact.

When it is uncertain which station is calling you, use the following:

**ATC:** Station calling Canaria Control say again your callsign?

**Pilot:** Canaria Control, AIR EUROPA five two golf, inbound LARYS, flight level one eight zero.

## 14.6 Call/Reply Procedure

- **Call:** Station called, Station calling
- **Reply:** Station calling, Answering station, Proceed with transmission
  
- **Pilot calling:** Rio De Janeiro Tower, TAM three five three seven
- **ATC replying:** TAM three five three seven, Rio De Janeiro Tower
- **ATC calling:** TAM three five three seven, Rio De Janeiro Tower
- **Pilot replying:** Rio De Janeiro Tower, TAM three five three seven

## 14.7 ICAO format Callsigns

- ICAO formatted callsigns start with the 3 letter ICAO code of the airline

|         |                          |
|---------|--------------------------|
| VIP 418 | Freewings FOUR ONE EIGHT |
| SVA 011 | Saudi ZERO ONE ONE       |
| BCS 666 | Eurotrans SIX SIX SIX    |

## 14.8 IATA Flight Numbers

- IATA formatted Flight Numbers start with the 2 letter IATA code of the airline and end with the flight number
- Only used by travel agencies and on the passenger tickets (flight number)

**Examples:** SN2268 TV884 KL1722 AF301

**!/\ In real life IATA abbreviations are NOT used by ATC or on flight plans. Only ICAO call signs or full immatriculations are used !/\**

## 14.9 Aircraft Immatriculation Callsigns

|       |                                      |
|-------|--------------------------------------|
| OOTWA | OSCAR OSCAR TANGO WISKEY<br>ALFA     |
| DEDJF | DELTA ECHO DELTA JULLIET<br>FOXTROT  |
| FCYAB | FOXTROT CHARLIE YANKEE<br>ALFA BRAVO |

## 14.10 Aircraft Abbreviated Callsigns

- The first character of the registration
- At least the last two characters of the callsign
- Use abbreviated call signs only after satisfactory communication has been established and no confusion with other aircraft on your frequency is possible.

**!/\ A pilot shall use his abbreviated callsign ONLY AFTER ATC has taken the initiative !/\**

|        |                                |
|--------|--------------------------------|
| OOFWA  | OSCAR __ WHISKEY ALFA          |
| N202PY | NOVEMBER ___ PAPA<br>YANKEE    |
|        | NOVEMBER __ TWO PAPA<br>YANKEE |

**Note:** Either the name of the aircraft manufacturer or the aircraft model may be used instead of the first character

|       |                                   |
|-------|-----------------------------------|
| OOFWA | Robin ___ WHISKEY ALPHA           |
|       | Robin __ FOXTROT WHISKEY<br>ALPHA |
| OOTMG | Piper ___ MIKE GOLF               |
|       | Piper __ TANGO MIKE GOLF          |

- The telephony designator of the aircraft operating agency (company callsign), followed by at least the last two characters of the registration

|           |               |
|-----------|---------------|
| Speedbird | SPEEDBIRD ___ |
|-----------|---------------|

|             |                    |
|-------------|--------------------|
| (BAW) GBOAC | ALPHA CHARLIE      |
|             | SPEEDBIRD __ OSCAR |
|             | ALPHA CHARLIE      |

- Never abbreviate ICAO callsigns

|         |                         |
|---------|-------------------------|
| EIN631  | SHAMROCK SIX THREE ONE  |
| THA2268 | THAI TWO TWO SIX EIGHT  |
| DLH1EE  | LUFTHANSA ONE ECHO ECHO |

### ! CAUTION !

- Different aircraft, same abbreviated call sign:

|       |                      |
|-------|----------------------|
| DEHLB | D ___ LB or D __ HLB |
| DAHLB | D ___ LB or D __ HLB |

## 14.11 Ground Station Callsigns

- On initial contact always identify yourself
- The ATC Callsign may be omitted if good communication has been established
- **Pilot:** Madrid Barajas APPROACH, BMA625 inbound BAN FL230, information A
- **ATC:** BMA625, Madrid Barajas APPROACH, squawk ident
- **Pilot:** Squawk ident, BMA625
- **ATC:** BMA625, identified 20NM west of BAN

| Unit or Service                      | Callsign                                | remarks                                 |
|--------------------------------------|---|---|
| Radar (in general)                   | Langen RADAR                            | (NOT in France)                         |
| Area Control Center                  | Ezeiza CONTROL                          | Use "CENTER" only in the USA            |
| Approach Control                     | Only when DEP and ARR are on same freq. | Only when DEP and ARR are on same freq. |
| Approach Control Radar Arrivals ONLY | Narita ARRIVAL                          |   |
| Precision Approach Radar             | Geilenkirchen PRECISION                 | Military APP procedure                  |



|  |   |   |
|--|---|---|
| Approach Control<br>Radar Departures<br>ONLY | Jeddah DEPARTURE  |   |
| Aerodrome<br>Control                         | Eindhoven TOWER   |   |
| Surface<br>Movement<br>Control               | Frankfurt GROUND  | ATC on taxiways<br>and taxilanes          |
| Clearance<br>Delivery                        | Cairo DELIVERY  | in France use:<br>PRE-FLIGHT              |
| Flight<br>Information<br>Service             | Brussels<br>INFORMATION<br><br>New Zealand and<br>Vanuatu use:<br>FLIGHT SERVICE                | Outside<br>controlled<br>airspace         |
| Aeronautical<br>Station                      | Schaffen RADIO<br><br>France: ... CLUB<br><br>New Zealand and<br>Vanuatu: ... FLIGHT<br>SERVICE | Information at<br>airfield without<br>ATC |
| Direction-Finding<br>station                 | Antwerp HOMER   |   |
| Apron Control                                | Seattle APRON   |   |
| Company<br>Dispatch                          | Company Dispatch  |   |