

ALL CLEAR?



VIDEO SCENARIOS COMMENTARY FOR TRAINERS

Scenarios 1-4

These notes are for use by Trainers to accompany the four ALL CLEAR? video clips. The aim is to provide you with notes that can guide classroom discussions following the playing of each of the clips.

The notes for each scenario start with a **short summary** of the key events. You may also wish to download the full transcripts.

The Q&A examples are included to use as an optional discussion guide: the answers given are not necessarily the only ones. Please add your own questions to highlight local rules/SOPs, pertinent to your own types and areas of operations, and a free discussion on communication should be encouraged.

TIPS and **learning points** are also included. We hope you find these resources useful and welcome your comments. Please send any feedback to: allclear@eurocontrol.int



SCENARIO 1 – CALL-SIGN CONFUSION

- 2 aircraft in 2 different but adjacent holds
- Both have similar call-signs
"A Jet 2062" and "A Jet2036"
- ATCO gives clearance "descend 4000ft" intended for **AJT2062** to **AJT2036** instead
- ATCO then passes heading change "left onto 040" to **AJT2036** whilst still thinking that he was talking to **AJT2062**
- Only when pilot of **AJ2036** queries this clearance (an unexpected heading change) that the ATCO realises that he has been confused and can then make a correction.

Q: What did the controller say he usually does when two aircraft with similar call-signs are on frequency?

A: He usually identifies this to all aircraft on frequency, but that *"this doesn't always work"*.

Any potential call-sign conflict should be notified by the person who first notices it.

Q: What did the pilot say when challenging the clearance – what was his question?

A: He used a "confirmatory" question – *"confirm heading 040 was for AJT2036?"*

Q: Although in this case the question was clear - what problem could this sort of question produce?

A: It may encourage the controller to think the heading was being queried rather than the call-sign; therefore leading to a further affirmative and compounding of the problem.

A: It can encourage an automatic response of "Yes".

Q: What would be another way of asking this question?

A: *"A Jet 2036 is currently heading xyz and descending to 4000ft on 1004, what course do you want AJ 2036 to fly?"*

Open questions are preferable to closed (yes/no answers) or confirmatory – it makes the other person THINK.

Avoid read-backs that are actually questions, for the same reasons.

Emphasise the importance of the read-back/hear-back loop, and especially, the need for effective LISTENING otherwise errors will not be detected.

SCENARIO 2 – RADIO DISCIPLINE

Big Jet587 landing on 24Right.

After landing **Big Jet587** crosses Runway 24Left (the pilots believing that they had been cleared) at the same time as another aircraft was rolling for take-off.

Departing aircraft managed to climb over **Big Jet587** and miss by around 100ft.

Q: What was the clearance to Big Jet587? Did anyone hear it clearly?

A: *"Hold short of 24L at Golf3"*

Q: Why then did Big Jet587 think they had clearance to cross?

A: First of all, the co-pilot (on radios) could have been working on an assumption that they would be cleared to cross 24L (taxiways Mike and November).

A: When the clearance came through an auto-pilot warning was sounding on the flight deck. The co-pilot could not have heard the clearance to hold short at Golf 3; and she read-back *"cleared to cross"*.

Q: Were the pilots wearing headsets?

A: Yes they were (good!).

Q: What happened in the Tower when the co-pilot's read-back was transmitted?

A: A colleague distracted the controller and he never heard the read-back; therefore hear-back was not completed and no correction could be made.

There were failures at several stages – pilots did not hear the clearance – read-back was wrong (based on an expectation – and there was no hear-back by the controller.

Q: How could this scenario have been avoided?

A: The co-pilot could have requested ATC to repeat the clearance, just to make sure.

A: The controller not being happy with missing the read-back and retransmitting the clearance again for confirmation.

Assumptions should usually be avoided, especially about expected clearances – BUT, if you are distracted at the same time as a clearance is received why not ASSUME that you did not hear it correctly and ask for it again?

Emphasise that ATCO hear-back and subsequent affirmation or correction are crucial elements of the Communication Loop.

Q: The captain seemed to be annoyed with the co-pilot, did he have some responsibility towards good communications?

A: Discuss CRM aspects!!

SCENARIO 3 – BLOCKED TRANSMISSION

- Two aircraft in the same en-route sector and both near to expected Top of Descent.
- **A Jet024** was cleared to descend to F260 by ATC
- **B Jet189** thought the clearance was for them and descended as well
- Both aircraft read back the clearance simultaneously and ATC only heard that from **A Jet024**, as expected
- The error is spotted by the controller when both aircraft are noticed descending.

Q: Why are incidents of simultaneous transmissions more common nowadays?

A: Traffic density/frequency congestion

A: Use by ATC of multiple cross-coupled frequencies on the same sector

Q: How can you sometimes tell if a transmission has been blocked by another?

A: Loud squeal heard on frequency

Q: Like in this example; why is it possible for ATC not hearing such a noise when two transmissions occurred at the same time?

A: Probably because the ATC Unit was using Best Signal Selection which is used to suppress weaker signals in order to hear the stronger.

Q: Why did co-pilot of B Jet189 read-back the clearance for A Jet024?

A: Expecting a descent from ATC any moment.

Q: What would have improved B Jet189's chances of noticing that it was someone else's clearance?

A: If both pilots had been on headset monitoring the frequency.

- o Perhaps the passenger briefing could have been conducted 10 minutes earlier?

Q: What did the Captain ask the co-pilot when he had finished his passenger briefing?

A: Was that the usual clearance?

Q: It didn't make any difference in this case, but how should that question have been phrased?

A: I missed that call – what was it (or, what was the clearance)?

Q: The controller did not hear B Jet189's read-back, how would the pilots have known that?

A: There was no hear-back acknowledgement.

Emphasise the need to always listen for a hear-back acknowledgement and complete the Communication Loop.

Q: How can we reduce the likelihood of transmitting at the same time as someone else, or of allowing others to transmit whilst we are still talking?

A: Discuss.

- Aim for a sterile flight deck from 10 minutes before Top of Drop.
- Both pilots on headsets for descent clearance onwards.
- Beware expectations you have for clearances.
- If there is no hear-back acknowledgement – check again.
- Listen before transmitting.
- Try not to pause too long whilst transmitting.
- Release press-to-transmit when you have finished speaking.
- If you hear (or suspect) a Blocked Transmission tell someone: some people transmit the word "BLOCKED".

SCENARIO 4 – LOSS OF COMMUNICATION

- **B Jet002** is No1 on approach being asked to go "to tower".
- The airport is busy – **B Jet306** has to depart quickly ahead of the landing aircraft
- Another aircraft **C Jet74** is No2 on approach descending to 3500ft
- **B Jet002** is asked to go "*to tower on 118.9*"
- **B Jet002** reads back in error "*to tower 118.5*"
- The read back error is not picked up by the controller
- Following attempts to contact each other, and extra coordination/de-confliction of traffic, **B Jet002** returns to approach frequency, but is ordered to "go around".

Q: What were the knock-on affects of this communication error?

A: B Jet002 lost his chance to land and was ordered to "*go-around*".

- Potentially adversely affecting schedule and/or landing fuel.

A: ATC were presented with an unnecessary and unexpected coordination/de-confliction problem.

Q: What is a growing problem that will be encountered if an unnecessary loss of communication is not resolved?

A: Ultimately Prolonged Loss of Communications (PLOC) can lead to an unnecessary military intercept.

Q: What are your actions when you lose communications?

A: Discuss.

Lost Communication is frequent at FIR boundaries near the limit of radio reception, and therefore, perhaps is often expected by pilots and controllers.

Q: What routes do you fly (sectors do you work) that present this scenario?

Q: What can be done to improve these situations?

A: Pass clearances/requests and frequency changes well in advance of the edge of reception.

A: Relay via other aircraft

A: Monitor 121.5

Discuss: incidents of PLOC within your company.

Q: Do you have alternative means of contacting aircraft other than via ATC VHF?

Emphasise once again the importance of the need to complete the Communication Loop – in this case controller an pilot LISTENING skills and hear-back by the controller.

- Ensure press-to-transmit switch is disengaged after transmitting.
- If the frequency is noticeably unusually quiet conduct a radio check.
- After being issued with a frequency change pause to listen for read-back affirmation or correction.
- Always monitor 121.5 MHz.

The numbers nine and five (niner and fife) can easily be confused with each other.

Q: What other numbers or words can be confused with each other?

Q: What have you experienced that is similar?

Q: How can we reduce the chances of a read-back being misunderstood?

A: Enunciation, pronunciation, standard phraseology, tone, pace, volume, avoid vocalising "um" and "er", don't clip the end of transmissions etc.

Q: How can we assist in our hear-back (listening) performance?

A: Use a headset, be monitored by a colleague, write down requests and clearances, avoid distractions, clear the mind of expectations etc.