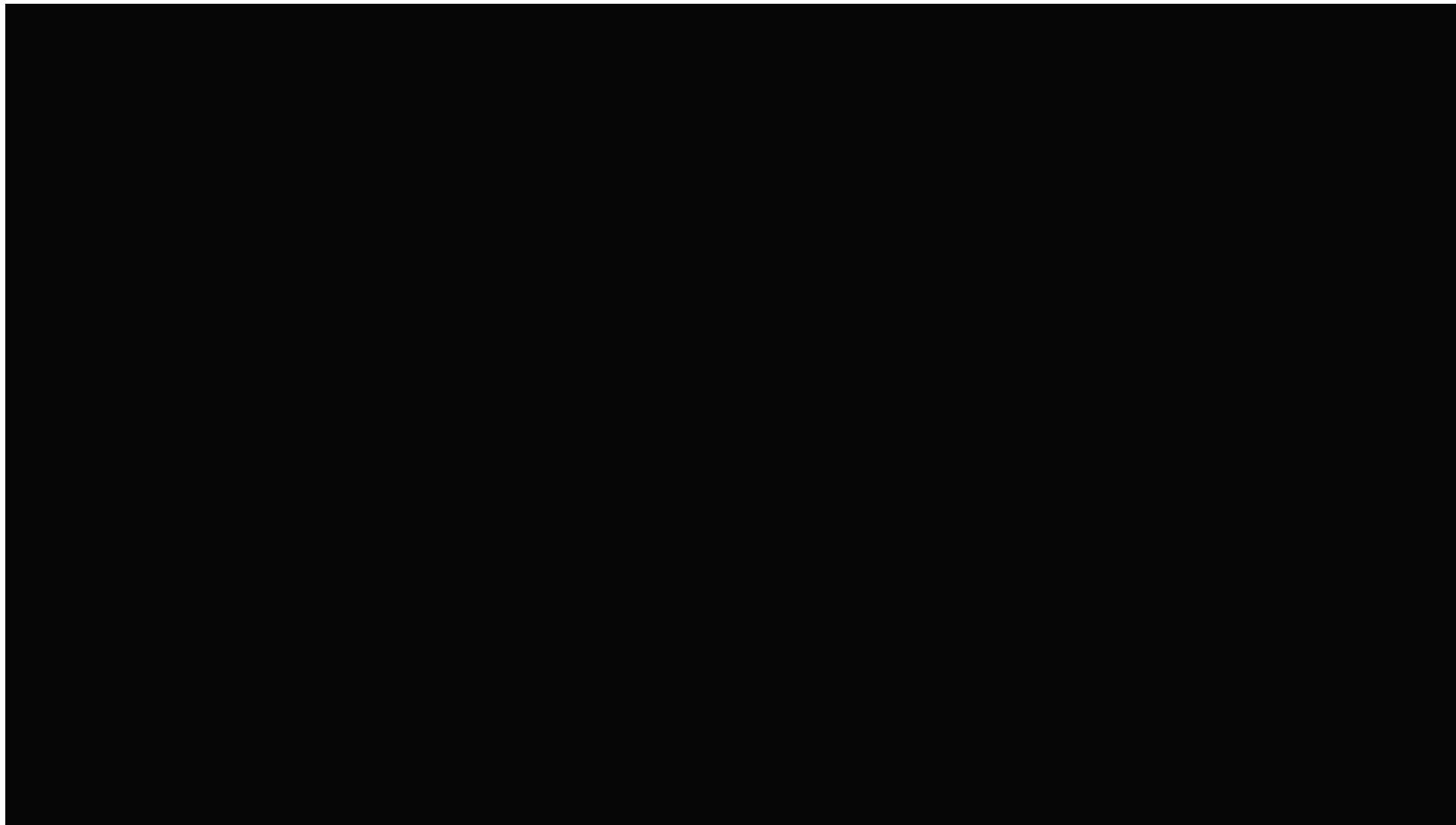


# Радиообмен на английском языке. RT Communications



**Почему Я выбрал эту тему?**



# Как повысить уровень и качество радиообмена?



# Наш план:

- Основы RT COMMS
- Полёт в контролируемом воздушном пространстве
- Полёт в неконтролируемом воздушном пространстве
- Важные моменты хорошего радиообмена
- Ресурсы для самостоятельной подготовки



# ОСНОВЫ. БУКВЫ И ЦИФРЫ

## Phonetic Alphabet

Alphabet	Pronunciation	Alphabet	Pronunciation
A – Alfa	AL fah	N – November	No VEM ber
B – Bravo	BRAH VOH	O – Oscar	OSS cahr
C – Charlie	CHAR lee	P – Papa	Pah PAH
D – Delta	DELL tah	Q – Quebec	Keh BECK
E – Echo	ECK oh	R – Romeo	ROW me oh
F – Foxtrot	FOKS trot	S – Sierra	See AIR ah
G – Golf	GOLF	T – Tango	TANG go
H – Hotel	Hoh TELL	U – Uniform	YOU nee form
I – India	IN dee ah	V – Victor	VIK tah
J – Juliett	JEW lee ETT	W – Whiskey	WISS key
K – Kilo	KEY loh	X – X-Ray	ECKS Ray
L – Lima	LEE mah	Y – Yankee	YANG key
M – Mike	MIKE	Z – Zulu	ZOO loo



## Numbers

Term	Pronunciation	Term	Pronunciation
0	ZE RO	7	SEV en
1	WUN	8	AIT
2	TOO	9	NIN er
3	TREE	decimal	DAY SEE MAL
4	FOW er	hundred	HUN dred
5	FIFE	thousand	TOU SAND
6	SIX		

# ОСНОВЫ. Фразы

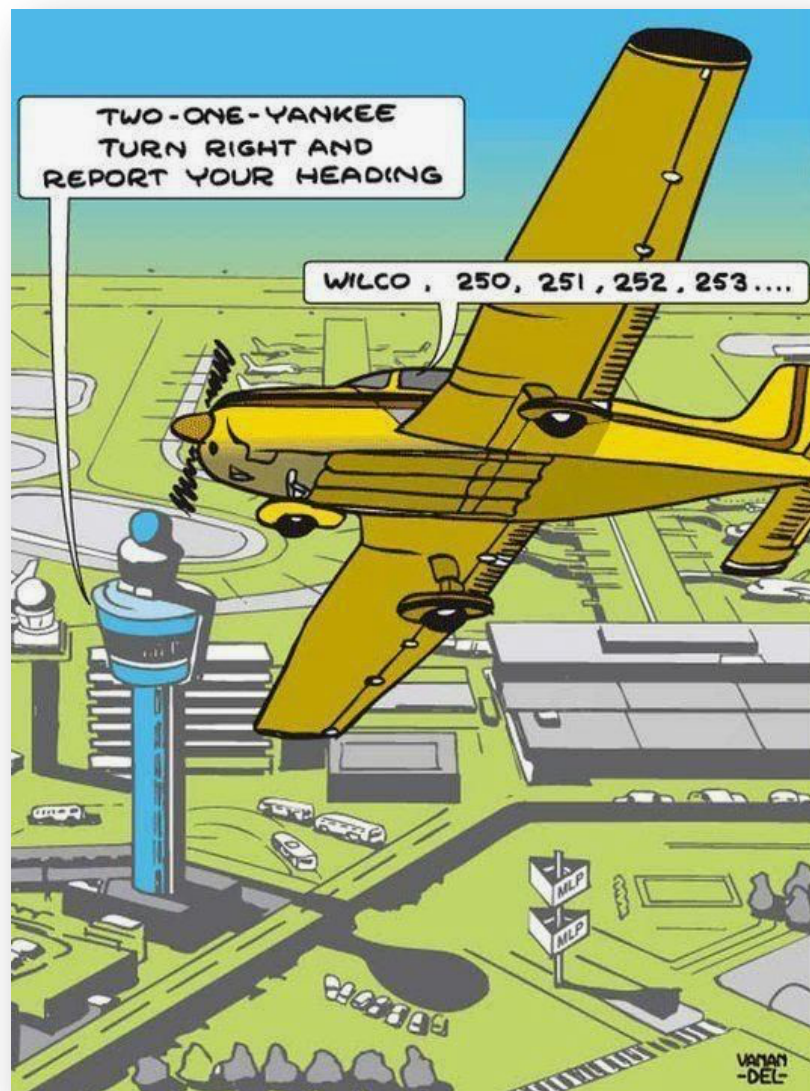
ACKNOWLEDGE	Let me know that you have received and understood this message.
AFFIRM	Yes.
APPROVED	Permission for proposed action granted.
BREAK	I hereby indicate the separation between portions of the message (to be used where there is no clear distinction between the text and other portions of the message).
CANCEL	Annul the previously transmitted clearance.
CHECK	Examine a system or procedure (no answer is normally expected).
CLEARED	Authorised to proceed under the conditions specified.
CONFIRM	Have I correctly received the following..? or Did you correctly receive this message ?
CONTACT	Establish radio contact with ...
CORRECT	That is correct.
CORRECTION	An error has been made in this transmission (or message indicated) the correct version is ...
DISREGARD	Consider that transmission as not sent.
GO AHEAD	Proceed with your message.

HOW DO YOU READ	What is the readability [ i.e. clarity and strength] of my transmission? (see «clarity of transmission' below».)
I SAY AGAIN	I repeat for clarity or emphasis.
MONITOR	Listen out on (frequency).
NEGATIVE	“No” or “Permission is not granted” or “That is not correct”.
OVER	My transmission is ended and I expect a response from you ( not normally used in VHF communication).
OUT	My transmission is ended and I expect no response from you ( not normally used in VHF communication).
READ BACK	Repeat all, or the specified part, of this message back to me exactly as received.
REPORT	Pass me the following information.
REQUEST	I should like to know or I wish to obtain.
ROGER	I have received all of your last transmission (under NO circumstances to be used in reply to a question requiring READ BACK or a direct answer in the affirmative or negative).
SAY AGAIN	Repeat all or the following part of your last transmission
SPEAK SLOWER	Reduce your rate of speech.
STANDBY	Wait and I will call you.
VERIFY	Check and confirm with originator.
WILCO	I understand your message and will comply with it.

# ОСНОВЫ. ЧИСЛИТЕЛЬНЫЕ.

## ВЫСОТЫ И ВИДИМОСТЬ ТЫСЯЧИ И СОТНИ

<i>Altitude</i>	<i>Transmitted as</i>
800	Eight hundred
3 400	Three thousand four hundred
12 000	One two thousand
<i>Cloud height</i>	<i>Transmitted as</i>
2 200	Two thousand two hundred
4 300	Four thousand three hundred
<i>Visibility</i>	<i>Transmitted as</i>
1 000	Visibility one thousand
700	Visibility seven hundred
<i>Runway Visual Range</i>	<i>Transmitted as</i>
600	RVR six hundred
1 700	RVR one thousand seven hundred



## Всё остальное

## каждая цифра отдельно

КУРС 150 – HEADING ONE FIVE ZERO

Направление ветра 020°  
– “WIND ZERO TWO ZERO DEGREES”

Скорость ветра 10 узлов –  
“ONE ZERO KNOTS”

Полетный эшелон FL180  
– “FLIGHT LEVEL ONE EIGHT ZERO”

Давление QNH 1014 Hg  
– “QNH ONE ZERO ONE FOUR”

Частота 122.0 MHz  
– “ONE TWO TWO DECIMAL ZERO”



# ОСНОВЫ. Произношение позывных

ВС – бортовой номер (+префикс\*), либо позывной компании вместе с номером рейса.



## Наземные станции

Unit or service	Callsign Suffix	Instructions or Information
Air Traffic Control (ATC) unit at an aerodrome	'GROUND' 'TOWER' 'APPROACH' 'ARRIVAL' 'DEPARTURE' 'DELIVERY'	ATC service is provided to prevent collisions between aircraft and on the manoeuvring area between aircraft and obstructions. You should comply with ATC instructions unless you advise the controller that you are unable to do so. At busy aerodromes separate controllers may use different callsigns for different tasks as shown
Radar unit (ATC)	'RADAR'	Radar unit in general
Area control centre (ATC)	'CONTROL'	Area control centre
Aerodrome Flight Information Service (AFIS)	'INFORMATION'	AFIS provides pilots with information useful for the safe and efficient conduct of aerodrome traffic. An AFISO may relay ATC clearances issued by a controller.
Flight Information Service (FIS)	'INFORMATION'	FIS provides pilots with information useful for the safe and efficient conduct of flight. A FISO may relay ATC clearances issued by a controller.
Aeronautical Station	'RADIO'	Aeronautical station in general



**KEEP IT SIMPLE!**

## **W's of RT COMMS**

WHO YOU'RE TALKING TO

WHO YOU ARE

WHERE YOU ARE

WHAT IS YOUR REQUEST (and intentions)

WITH WHAT INFORMATION

**BASIC PARTS OF ALL COMMS**

**REQUEST**

**INSTRUCTIONS**

**CONFIRMATION**

# Полетели. Контролируемый аэропорт.

## 1. Departure information

✈ IBIZA Ground, ES-ANS, GA apron, stand 93N, good day. How do you read?

🗨 ES-ANS, IBIZA Ground, read you 5.

✈ ES-ANS, request departure information.

🗨 E-NS, runway 06, wind 350 degrees 4 knots, temperature 16, dew point 10, Clouds few 1500, scattered 3000, QNH 1007.

✈ Runway 06, QNH 1007, E-NS.

✈ E-NS Ready to copy departure clearance.

или ATIS

THIS IS IBIZA ATIS INFORMATION N  
AT TIME 0800  
EXPECT ILS APPROACH  
Runway 06  
Transition level 80  
Wind 350 degrees 4 knots  
Visibility more than 10 kilometers  
Clouds FEW 1500 Scattered 3000  
Temp 16 Dew point 10  
QNH1007  
NOSIG  
REPORT YOU HAVE INFORMATION N

## 2. Departure Clearance

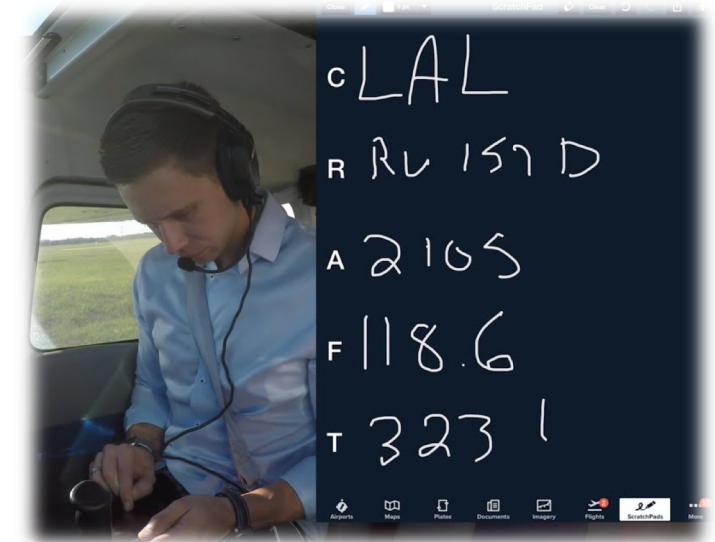
**C** – Clearance DESTINATION LERE LEAVE CTR N1 N

**R** – Route XOSTA 3F VFR 06 ← N1

**A** – Altitude FL100 2500

**F** – Frequency PALMA 134,825

**T** – Transponder (Squawk) 6744 6744



### Пример IFR clearance.

ES-ANS Cleared to Destination LERE via XOSTA 3F Departure, Flight Planned Route, Climb FL100, When Airborne, contact PALMA APP 134,825, SQUAWK 6744.

### Пример VFR clearance.

ES-ANS Cleared To Leave Control Zone via N1 N, VFR, After Take-Off runway 06 Left Turn direct N1, Climb 2500 feet. SQUAWK 6744,

# LEIB SID AND VISUAL APP CHARTS



- C** – Clearance    DESTINATION LERE    LEAVE CTR N1 N
- R** – Route    XOSTA 3F    VFR 06 ← N1
- A** – Altitude    FL100    2500
- F** – Frequency    PALMA 134,825    -
- T** – Transponder (Squawk)    6744    6744

# Полетели. Контролируемый аэропорт.

## 3. Руление и взлёт

✈ E-NS, stand 93N, ready for taxi.

🗨 E-NS, taxi to holding point runway 06 via A C H2.

✈ Taxi to holding point runway 06 via A C H2, E-NS.

🗨 E-NS, contact Tower 118,5 .

✈ 118,5, E-NS, Good Bye.

✈ IBIZA Tower, ES-ANS, H1, good day.

🗨 ES-ANS, IBIZA Tower, hello. Line-up runway 06.

✈ Lining-up Runway 06, ES-ANS.

🗨 E-NS, Wind 350 degrees 4 knots. Runway 06 cleared for take-off, left turn.

✈ Runway 06 cleared for take off, left turn, E-NS.





# Полетели. Контролируемый аэропорт.

## 4. Полёт по кругу

✈ IBIZA TOWER, ES-ANS downwind runway 06, landing.

🗣 E-NS, you are number two following Diamond DA42 3 miles final runway 06.

✈ Number two, looking for the traffic, E-NS.

✈ E-NS, traffic insight.

🗣 E-NS, report base.

✈ Wilco, E-NS.

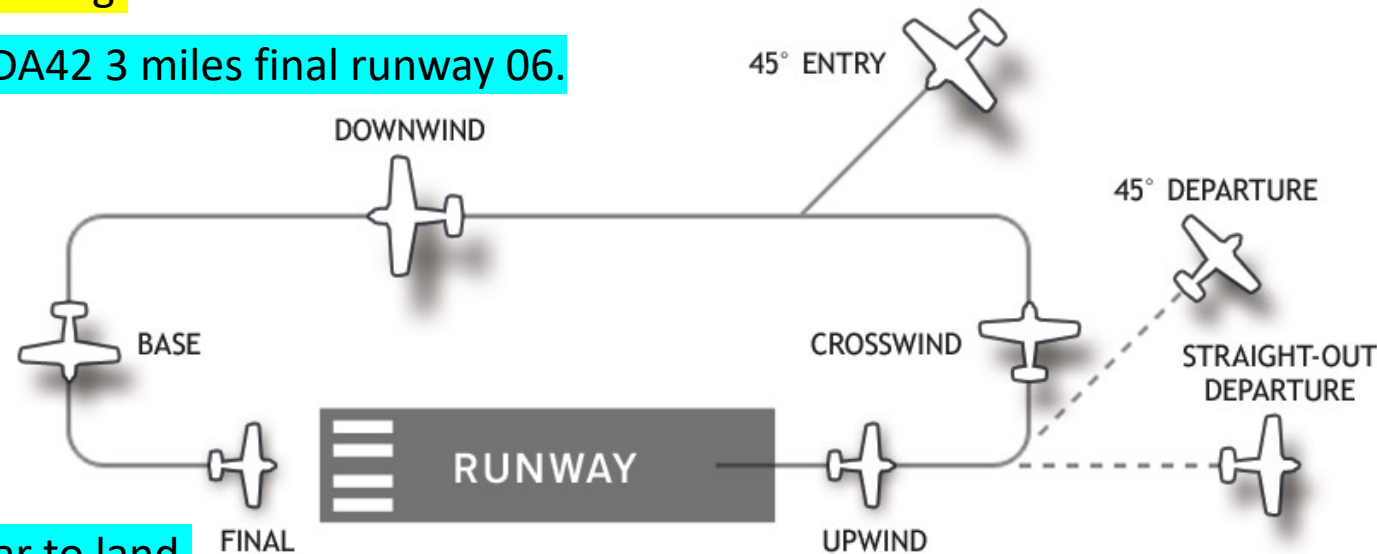
✈ E-NS, Base runway 06.

🗣 E-NS, wind 340 degrees 5 knots, runway 06 clear to land.

✈ Runway 06, clear to land, E-NS.

🗣 E-NS, contact ground 121,925, bye.

✈ Ground 121,925 E-NS, good bye



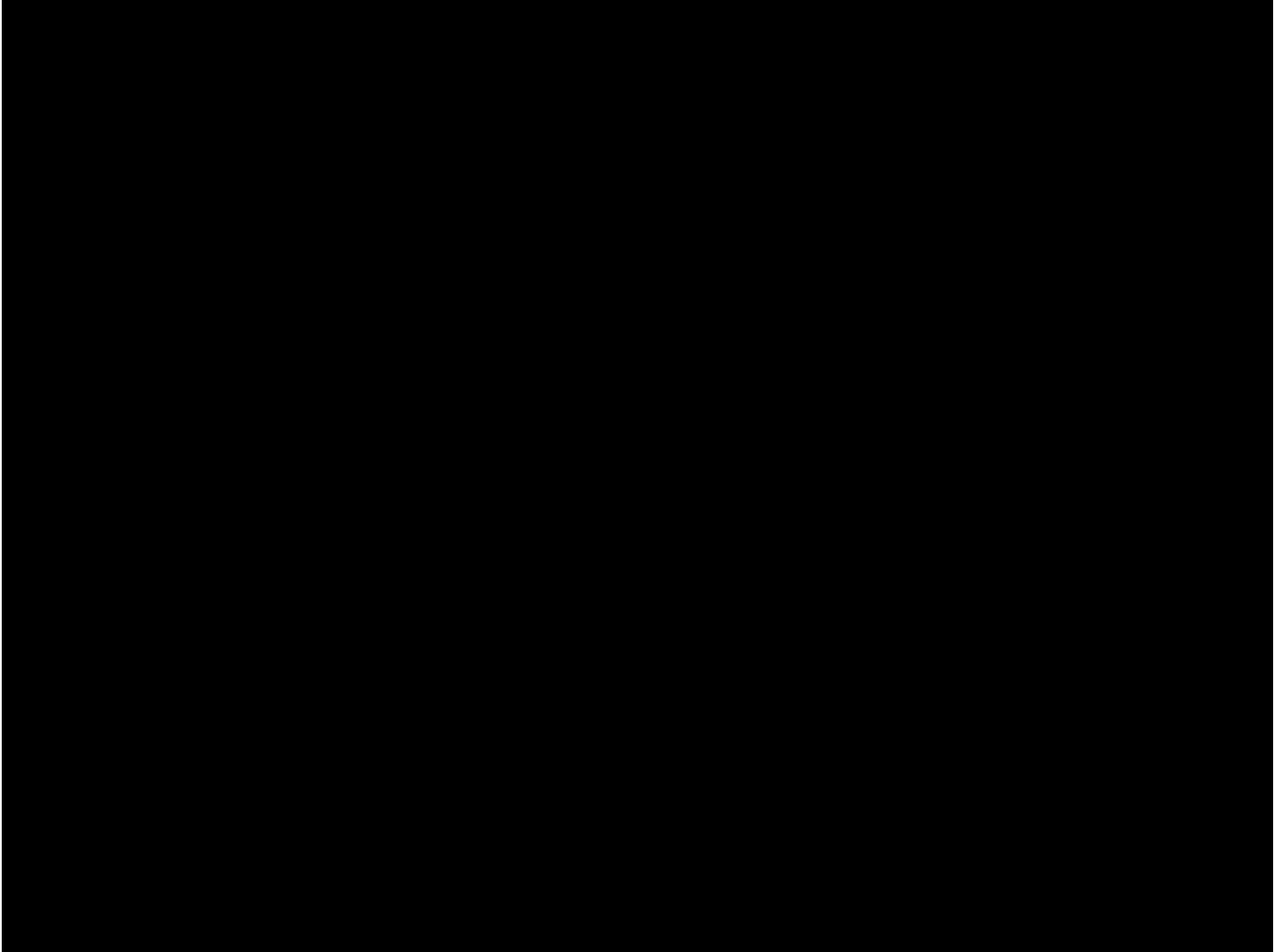
# Полетели. Неконтролируемый аэропорт.

## 4. Полёт по кругу

- ✈ Requena Traffic, ES-ANS Rolling, runway 30.
- ✈ Requena traffic, ES-ANS is Airborne from runway 30, circuits .
- ✈ Requena traffic, ES-ANS, right downwind, runway 30, landing.
- ✈ Requena traffic, ES-ANS, right base, runway 30
- ✈ Requena traffic, ES-ANS, final, runway 30, landing
- ✈ Requena traffic, ES-ANS, runway vacated.



# Confused Pilot



# PRACTICE!

Практикуйтесь

W's

PRACTICE ALL THREE PARTS

FOR ALL STAGES OF FLIGHT

Практикуйте все 3 элемента RT COMMS  
для ВСЕХ этапов полёта

SAY THEM OUT LOUD

Проговаривайте вслух

WRITE IT DOWN

Делайте шпаргалки



# USE A SINGLE TRANSMISSION

Скажите всё за один раз.

# ACTIVELY LISTEN FOR YOUR CALLSIGN

Внимательно слушайте свой позывной в эфире.

**WAIT YOUR TURN TO COMMUNICATE**

Дождитесь своей очереди, чтобы выйти в эфир.

# ASK ATC TO REPEAT OR TALK SLOWER

Просите повторить информацию, которую Вы не разобрали, а также говорить медленнее, если необходимо.

«SAY AGAIN»

«SPEAK SLOWER»



# DON'T HESITATE TO SAY UNABLE

Не стесняйтесь сказать: «не могу выполнить»

**PRACTICE!**

**PRACTICE!**

**PRACTICE!**

# Ресурсы для изучения COMMS.



VASAviation - 338 тыс. подписчиков



Piper Archer MAKES LANDING ON A HIGHWAY a...  
49 тыс. просмотров



Skywest CRJ-700 has POSSIBLE SMOKE IN THE...  
15 тыс. просмотров



C182 pilot is FORCED TO LAND ON THE FREEWAY |...  
57 тыс. просмотров



[FUNNY ATC] Pilot makes Passenger Announcement ...  
118 тыс. просмотров  
Неделю назад

**Say Again?**  
Phraseology Database

Keyword Search  
Type here... [Reset All] [Info]

**Categories**

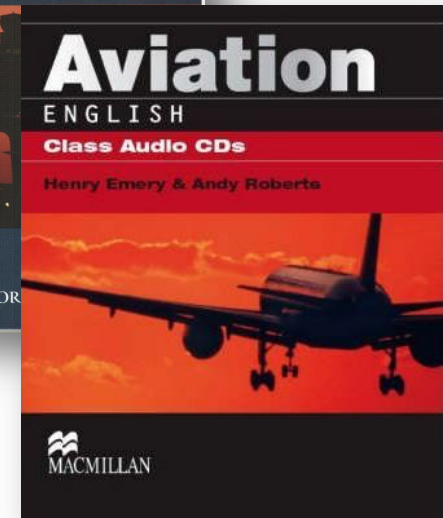
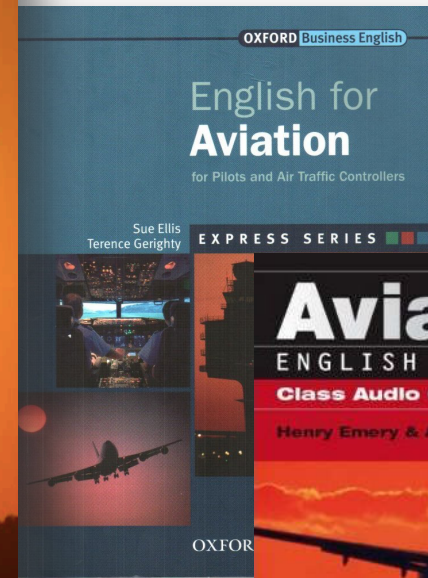
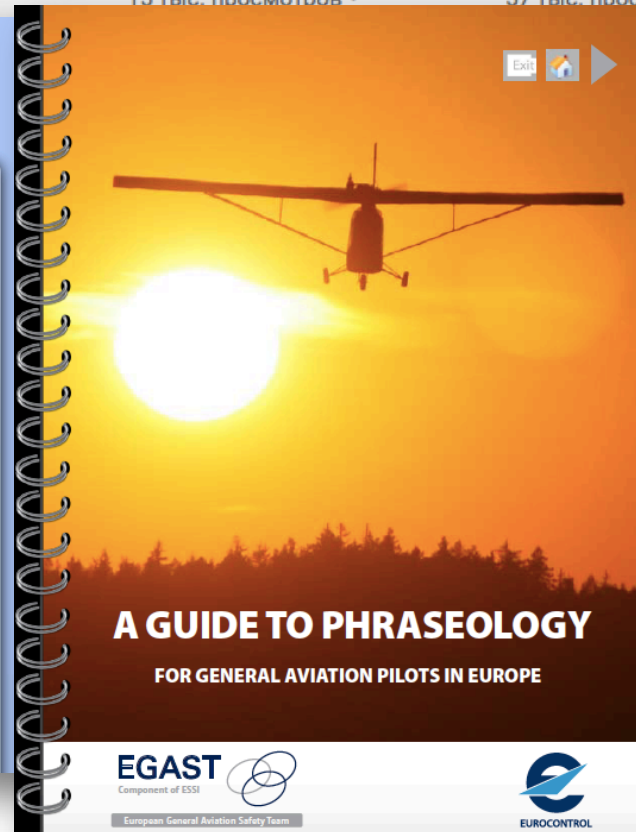
- Aerodrome and Vicinity (133)
- Aircraft (35)
- Approach Control Services (107)
- Area Control Services (46)
- Coordination between ATS Units (25)
- CPDLC (5)
- Emergency or unusual situation (14)
- General (129)
- General ATS Surveillance

**Context**

- 8.33 KHZ CHANNEL SPACING (4)
- ACAS RA (4)
- ACKNOWLEDGEMENT (3)
- AERODROME INFORMATION (16)
- AERODROME TRAFFIC CIRCUIT (9)
- AFTER LANDING (8)
- AFTER TAKE-OFF (8)
- ALERTING PHRASEOLOGIES (4)
- APPROACH INSTRUCTIONS (29)
- APPROVAL REQUEST (6)

**Phrases**

- (aircraft call sign) CLEARED TO.
- (aircraft call sign) LOW ALTITUDE WARNING, CHECK YOUR ALTITUDE IMMEDIATELY, QNH IS (number) [(units)]. [THE MINIMUM FLIGHT ALTITUDE IS (altitude)].
- (aircraft call sign) NOT RELEASED [UNTIL (time or significant point)].
- (aircraft call sign) RELEASED [AT (time)] [conditions/restrictions].
- (aircraft call sign) REQUEST APPROVED [(restriction if any)].
- (aircraft call sign) TERRAIN ALERT, (suggested pilot action, if possible).
- (aircraft call sign) UNABLE (alternative instructions).
- (aircraft type) (destination).



**Спасибо!**  
**Thank you!**