General

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Below are excerpts from AIP Germany GEN 3.4.

Language

Radio communication is to be conducted in **English** or the language normally used by the ground station. Preferably, English should be used in Germany. **German** may be used if the relevant frequency permits it.

In **emergencies**, **any language** that both pilot and controller can adequately understand is allowed.

Radio Communication Procedures

Standard phraseology is to be used in all situations where it is prescribed. Normal expressions are only to be used if standard phraseology is not suitable for the intended transmission.

Except for safety reasons, no transmission should be made to an aircraft during takeoff, the final part of the approach, or rollout after landing.

Phrases like "SOFORT / IMMEDIATELY" or "BESCHLEUNIGEN SIE / EXPEDITE" are only used by air traffic control when absolutely necessary. If immediate compliance is not possible for safety reasons, the instruction should be followed as much as possible and air traffic control should be informed accordingly.

Abbreviations are not allowed in radio communication except for those commonly used in aviation (e.g., ATC, FIR, IFR, RVR, VFR, VMC, VOR), and Q-groups (e.g., QNH, QFE, QDM).

The callsign shall be transmitted at the beginning of the message. A direct reply to a message can end with the callsign.

Establishing Radio Contact

When establishing radio contact, **full callsigns** must always be used. Aircraft should start their call with the designation of the ground station, followed by their own callsign.

In response to the above calls, the callsign of the calling station followed by the callsign of the responding station should be used, which serves as an invitation to continue transmission by the calling station. When handing over radio communication within an air traffic service unit, the

callsign of the air traffic service unit may be omitted.

If the callsign of the calling station is not understood, the phrase "WIEDERHOLEN SIE IHR RUFZEICHEN / SAY AGAIN YOUR CALL SIGN" shall be used.

Handover of traffic

On every **frequency change**, a pilot on an IFR flight must state the **current altitude** and, **if climbing or descending, also the cleared altitude**. When switching from approach control to aerodrome control, stating the altitude is not required. For approaches to airports with parallel runway systems, the runway being approached should be specified along with the aircraft's callsign.

When a radio communication is handed over from one air traffic service unit to another, the aircraft should be informed of the callsign of the unit to be contacted and the frequency to be used.

"D-EABC, CONTACT LANGEN INFORMATION (frequency/channel)."
"D-EABC MONITOR LANGEN TOWER 119.900"
"D-EABC STANDBY FOR LANGEN TOWER 119.900"

Note: An aircraft can be instructed to:
a) switch to a frequency with the term "STANDBY" and wait for air traffic services to make contact shortly,
b) switch to a frequency where information is broadcast (e.g., ATIS) with the term "MONITOR."

Acknowledging Messages

The reception of messages must be acknowledged unless an exception is permitted below.

An aircraft station must acknowledge the receipt of a message by transmitting its own callsign and, if applicable, the phrase "ROGER."

When air traffic control acknowledges receipt of a message from an aircraft, the acknowledgment must include the aircraft's callsign, followed by the callsign of the air traffic control unit if necessary.

The flight crew must repeat back the safety-relevant parts of air traffic control clearances and instructions that are transmitted by radio. The following points must always be repeated:
a) enroute clearances;
b) clearances and instructions for taxiing, landing, taking off, holding short of, crossing, and backtracking on runways;
c) active runway, altimeter settings, SSR codes, newly assigned radio channels, altitude instructions, course and speed instructions; and
d) transition levels, regardless of whether they were transmitted by a controller or contained in ATIS broadcasts.

Other clearances or instructions, including conditional clearances and taxiing instructions, must be repeated or acknowledged in a manner that shows they have been understood and will be followed.

Corrections and Repetitions

If an error occurs during transmission, the phrase "BERICHTIGUNG / CORRECTION" is to be used, the last correct phrase or group of words is to be repeated, and the correct wording is then transmitted.

If the receiving station doubts the correctness of the received message, it must request a repetition of either the entire message or parts of it.

If a complete repetition of a message is necessary, the phrase "WIEDERHOLEN SIE / SAY AGAIN" should be used.

Radio checks

Radio checks must be made in the following format:
a) designation of the called station;
b) designation of the calling station;
c) the words "RADIO CHECK";
d) the frequency being used.

The response to a radio check must be in the following format:
a) designation of the station requesting the radio check;
b) designation of the responding station;
c) information on the readability of the station requesting the radio check.

The readability of the radio check is to be assessed using the following scale:

1 = unreadable
2 = readable now and then
3 = readable but with difficulty
4 = readable
5 = perfectly readable

Rufzeichen von Bodenfunkstellen (ATC)

The callsign of a ground station consists of the location or the name of the ground station and one of the following function designations:

For radio communication in English:

a) CONTROL – Bezirkskontrolle ohne Radar / area control service without radar
b) APPROACH – An- und Abflugkontrolle ohne Radar / arrival and departure control service without radar

c) RADAR Flugverkehrskontrolle mit Radar / air traffic control service with radar
d) DEPARTURE Abflugkontrolle mit Radar / departure control service with radar
e) ARRIVAL Anflugkontrolle mit Radar / arrival control service with radar
f) DIRECTOR Endanflugkontrolle mit Radar / control service on final approach with radar
g) PRECISION Endanflugkontrolle mit Präzisionsradar / control service on final approach with precision radar
h) TOWER Flugplatzkontrolle / aerodrome control service
i) GROUND Flugverkehrskontrolle auf dem Rollfeld / air traffic control on the manoeuvring area
j) DELIVERY Übermittlung von Streckenfreigaben / transmission of en-route clearances
k) INFORMATION Fluginformationsdienst durch die DFS / flight information service by DFS
l) APRON Bewegungslenkung auf dem Vorfeld durch den Flughafenunternehmer / aircraft guidance on the apron by the airport operator
m) INFO Flugplatzinformationen durch den Flugleiter an unkontrollierten Flugplätzen ohne AFIS-Anbieter / aerodrome flight information provided by aerodrome operations management (Flugleiter) at uncontrolled aerodromes without AFIS provider
n) INFORMATION Flugplatz-Fluginformationsdienst an unkontrollierten Flugplätzen mit AFIS-Anbieter / aerodrome flight information service at uncontrolled aerodromes with an AFIS provider

For radio communication in German:

a) TURM aerodrome control service
b) ROLLKONTROLLE air traffic control on the maneuvering area
c) VORFELD aircraft guidance on the apron by the airport operator

Callsigns of air stations (e.g., aircraft)

Aircraft station callsigns must correspond to one of the following types:

Type a): the registration markings of the aircraft;
or
Type b): the aircraft operator's designation used in radio communication, followed by the last four characters of the aircraft's registration markings;
or
Type c): the aircraft operator's designation used in radio communication, followed by the flight number.

Abbreviated Callsigns

Aircraft callsigns in radio communication, except for Type c), can be abbreviated as follows:
Type a): the first character of the registration markings and at least the last two characters of the callsign;
Type b): the aircraft operator's designation used in radio communication and at least the last two characters of the callsign;
Type c): no abbreviated callsign.

Callsign	Type a)	Type b)	Type c)

Full	DENOW	CONDOR ABUC	WALTER 666
Abbreviated	DOW orDNOW	CONDOR UCor CONDOR BUC	no abbreviation

Abbreviated callsigns in radio communication may only be used after radio contact has been successfully established and confusion is unlikely. An aircraft may only use its abbreviated callsign after it has been used by the ground station.

Pilots must append the following additions to their callsign when establishing radio contact with air traffic control and after each frequency/channel change:
a) For aircraft in the HEAVY wake turbulence category, the word "HEAVY," and for Airbus A380 (A388) aircraft, the word "SUPER";
b) for aircraft without the required area navigation equipment, the addition "NON RNAV";
c) for aircraft with priority treatment according to BMVI regulations, the addition "GOVERNMENT FLIGHT" or "PREFERENCE FLIGHT";
d) for formation flights, the word "FORMATION" or "FLIGHT."

Transmission of Letters

In radio communication, the spelling alphabet from the following table is to be used for spelling names, abbreviations, and words whose spelling is unclear:

Letter	Code word	rough pronunciation (emphasis underlined)
A	Alfa	AL FA
B	Bravo	BRA WO
C	Charlie	TSCHAHR LI / SCHAHR LI
D	Delta	DEL TA
E	Echo	ECK O
F	Foxtrot	FOX TROT
G	Golf	GOLF
H	Hotel	HO TELL
I	India	IN DIA
J	Juliett	DSCHU LJETT

K	Kilo	KI LO
L	Lima	LI MA
M	Mike	MAIK
N	November	NO WEMM BA
O	Oscar	OSS KA
P	Papa	PA PA
Q	Quebec	KI BECK
R	Romeo	ROH MIO
S	Sierra	SI ER RA
T	Tango	TÄN GO
U	Uniform	JU NIFORM / U NIFORM
V	Victor	WIK TOR
W	Whiskey	WISS KI
X	X-Ray	EX RE
Y	Yankee	JÄN KI
Z	Zulu	ZU LU

To distinguish between runways, the following terms shall be used:
L: LINKS / LEFT
R: RECHTS / RIGHT
C: CENTER

Transmission of numbers

Numbers or characters shall be transmitted as follows:

Number or Characters	Pronunciation DE	Pronunciation EN
0	null	SI-RO
1	ein(s)	WOAN

2	zwo	TUH
3	drei	TRI
4	vier	FOHR
5	fünf	FEIF
6	sechs	SIX
7	sieben	SEW-en
8	acht	ÄIT
9	neun	NEIN-er
10	zehn	TEN
11	elf	IH-LE-WEN
12	zwölf	TWELF
Hundred	hundert	HAN-red
Thousand	tausend	TAU-SÄND
.	Komma	DES-SI-MEL
,	Komma	DES-SI-MEL
/	Schrägstrich	DEIÄGONEL

All numbers used in the transmission of **aircraft call signs, headings, runways, wind direction, and speed** are to be transmitted by pronouncing each digit separately.

Flight levels are to be transmitted by pronouncing each digit separately, except for values that are whole hundreds.

The **altimeter setting** is to be transmitted by pronouncing each digit separately, except for a setting of 1,000 hPa, which is to be transmitted as "EIN TAUSEND / ONE THOUSAND."

All numbers used in the transmission of **transponder codes** are to be transmitted by pronouncing each digit separately, except that transponder codes that consist of whole thousands are to be transmitted by pronouncing the digit in the thousands place and adding the word "TAUSEND / THOUSAND."

All numbers used for transmitting information other than those mentioned above are to be transmitted by pronouncing each digit separately, except that all numbers that include whole hundreds and thousands are to be transmitted by pronouncing each digit in the number of hundreds or thousands, and adding the words "HUNDRED" or "THOUSAND," respectively. Combinations of thousands and whole hundreds are to be transmitted by pronouncing each digit in the thousands place and adding the word "THOUSAND," followed by the number of hundreds and the word "HUNDRED."

When transmitting information about the **direction to an object** or **traffic by clock positions**, the information is to be transmitted by pronouncing the numbers together, e.g., "ZEHN UHR / TEN O'CLOCK," "ELF UHR / ELEVEN O'CLOCK."

If the VHF radio channel spacing is 25 kHz or 8.33 kHz, **three digits after the decimal point** are to be spoken in radio communication. If the second and third digits after the decimal point are zero, it is sufficient to speak only the first digit after the decimal point.

Examples:

118.000 EINS EINS ACHT KOMMA NULL
118.000 ONE ONE EIGHT DECIMAL ZERO
118.005 EINS EINS ACHT KOMMA NULL NULL FÜNF
118.005 ONE ONE EIGHT DECIMAL ZERO ZERO FIVE
118.010 EINS EINS ACHT KOMMA NULL EINS NULL
118.010 ONE ONE EIGHT DECIMAL ZERO ONE ZERO
118.025 EINS EINS ACHT KOMMA NULL ZWO FÜNF
118.025 ONE ONE EIGHT DECIMAL ZERO TWO FIVE
118.050 EINS EINS ACHT KOMMA NULL FÜNF NULL
118.050 ONE ONE EIGHT DECIMAL ZERO FIVE ZERO
118.100 EINS EINS ACHT KOMMA EINS

Transmission of Visibility Values

Values for **flight visibility, ground visibility, and runway visual range** are to be transmitted as follows:

1. in meters for visibility less than 5 km;
2. in kilometers for visibility of 5 km or more, but less than 10 km;
3. as "visibility 10 kilometers" for visibility of 10 km or more.

Phrases

EN	DE	Meaning
AFFIRM	POSITIV	Yes
APPROVED	GENEHMIGT	Permission for proposed action granted
BREAK BREAK	TRENNUNG TRENNUNG	I hereby indicate the separation between messages transmitted to different aircraft in a very busy environment
CLEARED	FREI	Authorised to proceed under the conditions specified

CONFIRM	BESTÄTIGEN SIE	I request verification of (clearance, instruction, action, information
CONTACT	RUFEN SIE	Establish communications with . . .
CORRECT	KORREKT	True or Accurate
CORRECTION	BERICHTIGUNG	An error has been made in this transmission (or message indicated). The correct version is . . .
DISREGARD	IGNORIEREN SIE	Ignore
NEGATIVE	NEGATIV	No / Permission not granted / Not capable
RECLEARED	FREIGABEÄNDERUNG	A change has been made to your last clearance and this new clearance supersedes your previous clearance or part thereof
REPORT	MELDEN SIE	Pass me the following information
REQUEST	ERBITTE	I would like to know/I wish to obtain
ROGER	VERSTANDEN	I have received all of your last transmission. *Note: Under no circumstances to be used in reply to a question requiring READ BACK or a direct answer in the affirmative (AFFIRM) or negative sense (NEGATIVE).*
SAY AGAIN	WIEDERHOLEN SIE	Repeat all, or the following part, of your last transmission
STANDBY	STANDBY	Wait and I will call you *Note: The caller would normally reestablish contact if the delay is lengthy. STANDBY is not an approval or denial.*
UNABLE	NICHT MÖGLICH	I cannot comply with your request, instruction or clearance *Note: UNABLE is normally followed by a reason*
WILCO	WILCO	I understand your message and will comply with it

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