

## BREVITY CODEWORDS USED IN NAVAL TACTICAL COMMUNICATIONS

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**Abstract:** *When units of different navies that historically have never operated together are part of the same task force or task group, it is necessary for them to have and to use agreed-on voice procedures when using voice radio as the primary method of communications during exercises or operations. To ease coordination and improve understanding during operations, especially if there are multiservice operations going on, brevity codewords must be used by all participants in extremely efficient ways. Air-to-air, air-to-surface, surface-to air, surface-to-air codewords need to be standardized in order to insure fast, clear, accurate, and secure communications for all participants in a military action, because efficient communication is essential to effective team coordination.*

**Key words:** *brevity codeword, noun, adjective, participle, imperative*

### 1. INTRODUCTION

Military communications have been used since pre-history. Humans started communicating on foot, then progressed to signals, be them visual or audible, and later on advanced into the electronic age.

Tactical communications have come to refer to military communications in which information, especially orders and intelligence, is conveyed from one command to another during combat. The information can be delivered either verbally, in written form, by audio or visual signals, but in modern times this is usually done by electronic means.

Naval tactical communications (tactical communications used at sea) must be efficient, because efficient communications are essential to effective team coordination and team coordination is the key to a successful task force operation. To be efficient, they must be short and fast, precise and accurate, clear and intelligible, reliable and secure. In order to meet all these requirements, a lot of abbreviations (e.g. Nm stands for nautical mile), acronyms (e.g. SITREP meaning Situation Report, TACOM meaning Tactical Command, or EXTAC meaning Experimental Tactics), codewords (e.g. BOGEY, DEVILS, SKUNK, ZIP LIP), and short titles (e.g. COMNAVEUR stands for Commander, United States Naval Forces Europe) are used. Also, very important in this field of activity is the NATO phonetic alphabet. It is an international radiotelephony spelling alphabet assigning codewords to the letters of the English alphabet so that critical combinations of letters and numbers can be pronounced and understood by those who transmit and receive voice messages by radio or telephone, regardless of their native language, especially when safety is essential.

Tactical brevity codewords and procedure words, abbreviations and acronyms are designed to convey complex information with a few words, to provide common understanding and to minimize radio transmissions while executing tactics.

Brevity codewords used in naval tactical communications are meant to make reports clear, fast and simple. From a grammatical point of view, most of them are **nouns**, which have either singular forms or plural forms, **present or past participles, adjectives or verbs in the imperative mood**.

Nouns usually name different categories of participants in the operations (either enemy or friendly forces – surface, subsurface, or air vehicles), give information on their respective positions in the operations area, or identify different pieces of equipment employed in the operations.

Adjectives and some past participles used as adjectives are 'describing' words, their main syntactic role being to qualify a noun or a noun phrase, giving more info about the object signified. Adjectives and past participles are used to describe various conditions encountered in the operations area.

Participial phrases are frequently used as brevity codewords since they do not require an expressed grammatical subject, thus observing the brevity principle. The two types of participle in English are traditionally

called the present participle (serving as gerunds and verbal nouns), and the past participle. Past participles may be used, among others to say what happened to someone or something before a past situation or event (described in the main clause usually by a past tense form) [3]. Past participles used as adjectives almost always have a passive meaning. [5] Present participles are called 'ing forms' in some grammars. These 'ing forms' are active adjectives, they say what the noun is doing or feeling. [4]

As codewords, present participles express the idea that something is happening now, at this very moment or that something is about to happen in a very short time, whereas past participles express the idea that something has already happened and indicate the current state of things.

The imperative is a grammatical mood used to give a very clear order or instruction, to give advice or a warning, to appeal to someone to do something or when explaining something to someone. [3] It helps us form commands or requests, give permission, prohibition, or any other kind of exhortation. It is also used to make suggestions and to encourage people to do things. [5] So, in other words, we use imperatives to make people do things. [4] The imperative form is understood as being in the second person, with no explicit indication of singular or plural. In tactical communications this drawback is solved by the use of callsigns, which can be collective callsigns, or individual callsigns. Therefore, only those that hear their callsign shall acknowledge receipt of the order or directive and shall carry it out.

So, in tactical communications, imperatives are to be read as directive calls, past participles as an informative about the action that has been taken, and present participles as an informative about the action that is about to be taken by the reporting task element.

We shall now look into some of the most important brevity codewords used in naval tactical communications used for different purposes: to identify a track; to refer to its position and intentions (height, direction, course, speed of movement, size); to refer to the reporting unit's own position and activity; to give orders and directives. They have all been extracted from EXTAC 1000 Maritime Maneuvering and Tactical Procedures [2].

### 2. IDENTITY OF A TRACK

One important group of nouns used as brevity codewords give important information about the **contacts** or **tracks** on the communication nets: their identity (friendly tracks: FRIEND, MOTHER, SISTER, PLAYMATE, etc. or non-friendly tracks: NEUTRAL, STRANGER, SUSPECT, HOSTILE, etc.), their type (ship, submarine, aircraft), the environment in which they occur – surface, subsurface, air (BOGEY is an *air* contact detected by radar while SKUNK is a *surface* contact detected by radar), or their appearance and disappearance in the respective environment (for example RISER indicates a radar contact which has suddenly *appeared*, while SINKER indicates a radar contact that later *disappeared*), their position (distance or range, height or depth), their direction and speed, their number or strength, the means of detection used on them – radar or sonar.

The following identity codewords are most commonly used in naval tactical operations. Their great majority are nouns and/or adjectives, while some participles are also used.

For standard identity, the following are applicable under all circumstances:

PENDING – a contact which has not been subject to the identification process but is available for reporting

FRIEND – a contact belonging to a declared friendly nation

ASSUMED FRIEND – a contact which is assumed to be a friend because of its characteristics, behavior, or origin

NEUTRAL – a contact whose characteristics, behavior, origin, or nationality indicate that it is neither supporting nor opposing friendly forces

SUSPECT – a contact which is potentially hostile because of its characteristics, behavior, origin, or nationality

HOSTILE – a contact which is eligible to be engaged

UNKNOWN – an evaluated contact which has not been identified

For exercise identity, the following are applicable under exercise circumstances:

FAKER – a friendly contact acting as a HOSTILE for exercise purposes

JOKER – a friendly contact acting as a SUSPECT for exercise purposes

It is very important that the identities HOSTILE and SUSPECT should not be used during exercises.

The following, when used in a voice report, provide useful information on the identity of the contact being reported:

BROTHER – attacking ship of a surface ASW unit

CHICKS – friendly fighter aircraft

DRONE – friendly remote controlled air vehicle

MOTHER – parent ship

PLAYMATE – ship, submarine, or aircraft which I am cooperating with

SISTER – assisting ship of a surface ASW unit

STRANGER – an unknown contact not associated with action in progress

### **3. POSITION OF A TRACK**

#### **3.1 Height of aircraft**

The height of an air track is reported in different ways according to whether it is a friendly air track and other air tracks. ANGELS (thousands of feet) and FLIGHTLEVEL (hundreds of feet) are to be used for friendly air tracks exclusively when reporting their height. For other air tracks HEIGHT (feet) and ALTITUDE (hundreds of feet) should be used. One explanation is that other air tracks, especially hostile ones, are a threat when approaching the positions of the task group. Friendly air tracks pose no threat, they are important in terms of screening and early warning.

In case estimation is needed, when reporting the height of a track, the originator of the report may choose between VERY LOW (below 500 feet), LOW (between 500 and 5,000 feet), MEDIUM (between 5,000 and 25,000 feet), HIGH (between 25,000 and 50,000 feet) or VERY HIGH (above 50,000 feet).

Depth of underwater tracks (submarines, torpedoes, submerged objects).

DEMONS (in meters) gives us the water depth or the depth of certain objects, and DEVILS (tens of feet) gives us the depth of submerged tracks.

DEEP and SHALLOW are, of course, used to report underwater contacts or objects. The first indicates that the contact being reported is situated below layer depth, while the latter indicates that the contact is situated above layer depth.

Different actions will be taken in each of the two situations.

It is also extremely important to know how far the contact or the target is. For that the reporting unit will indicate either the distance in miles, and for that no proword is needed, or the RANGE, which is the distance to an object or target in hundreds of yards, normally limited to less than 10,000 yards.

When further target positional information is required, MORE HELP is used to ask for it.

#### **3.2 Direction, course and movement of a track**

“Ing” forms are mostly used in order to report the course of a contact to the CTG:

TRACKING is followed by a cardinal point (TRACKING NORTHEAST) or by a three digit course in degrees (TRACKING 340). For air tracks ORBITING can be used as well. CHANGING PORT/STBD indicates the fact that the contact is changing course to port or to starboard.

Quite often the reporting unit can also provide the CTG with valuable information on the intentions of the contact. The most frequent “ing” form used for this is CLOSING, which sometimes can be modified with the adverb FAST. Another codeword related to the contact's intentions is ABORTING, meaning that the designated contact is no longer continuing its actions. In other cases, much more hostile intentions can be reported, such as LAUNCHING MISSILES.

#### **3.3 Speed of a track**

The speed of a contact is either given using the proword SPEED followed by a number which is to be read in knots for surface tracks including helicopters, or in tens of knots for air tracks, or it can be estimated and reported using one of the following brevity codewords: SLOW (any detection with a ground speed of 200 knots or less), FAST (any detection with a ground speed of 300 to 599 knots) or VERY FAST (any detection with a ground speed of 600 knots or greater).

#### **3.4 Strength or size of a track**

SINGLE (one object), FEW (two to seven aircraft), and MANY (eight or more aircraft) are used when estimating the number of targets. In case the number of elements in a target is known with accuracy, it is reported using the codeword STRENGTH followed by the exact number of elements.

MERGED is a past participle used to indicate that tracks have come together. The opposite situation is when a contact is dividing, a situation reported by present participle SPLITTING.

MIX UP is used to refer to a situation in which friendly and hostile aircraft are mixed, within very close range. This mixture of identities dictates specific actions, the main focus being not to attack friendly forces.

### **4. REPORTING INFORMATION ON OWN CURRENT POSITION AND ACTIVITY**

During exercises and operations each task element has to report on its own position and the activity it is carrying out. This kind of data is usually reported in a SITREP (Situation Report), at certain intervals.

Most of the brevity codewords used to do this are adjectives, a couple of prepositional phrases, and plenty of present participles that indicate that an action is in progress.

The pair of antonyms COLD and HOT is used to indicate that the reporting unit has lost sonar contact (COLD) or that the unit is still holding that contact (HOT). Another pair of antonyms refers to equipment which is operating efficiently (SWEET) or not (SOUR). CLEAR and FOUL are used when talking about the flight deck of aircraft carriers: DECK CLEAR indicates that the deck is ready to resume launching or landing operations. DECK FOUL indicates the opposite: the deck team is unable to launch or land any aircraft. This brevity codeword is usually followed by a numeral to indicate the number of minutes anticipated before being ready to resume operation.

Depth, height and speed are extremely important pieces of information when reporting surface, subsurface and air contacts on communication nets.

STEADY is an adjective used when indicating that the originator of the voice report is on the prescribed heading or when it will straighten out immediately on the indicated heading. When describing its own position the originator of the voice report can also use ON STATION (meaning “I have reached my assigned station” or “I am maintaining my assigned station”) or ON TOP (I am over datum, target, object, or position indicated).

LOST is used when the reporting unit does not hold the radar contact anymore on a track for which it has reporting responsibility. It is in a way equivalent to COLD, but this one is used for sonar contacts.

Present participles are also frequently used to describe what is going on with the reporting unit, the activities it is carrying out at the moment, and the problems they are facing:

ABORTING – I am unable to continue the mission.

ATTACKING – I am commencing attacking run with weapon indicated

If the reporting unit is a helicopter, it will use one of the following:

BREAKING DIP – the helicopter is raising its transducer out of the water

MARKING DIP – the helicopter is coming to hover and commencing sonar search

ORBITING – the helicopter is orbiting the position indicated

If the reporting unit is an aircraft, other codewords may appear: HOMEPLATE is a home airfield or home carrier. PANCAKE is used by an aircraft to express its intention to land. Sometimes the pilot will also indicate the reason for his wish to land, for example PANCAKE-FUEL.

**Equipment** is also often reported in a SITREP, especially that equipment which is essential for the ongoing exercise.

A BALL is an ASW helicopter transducer used in underwater search of tracks. A GADGET is radar or emitter equipment. GERTRUDE is the codeword used to refer to the underwater telephone equipment.

Defective or inoperable equipment must be reported without delay. BENT means that the equipment indicated is inoperative. It is canceled later in another report by the codeword OKAY.

## **5. ORDERS AND DIRECTIVES**

The imperative mood is used to form commands or requests, including the giving of advice, instructions, permission, prohibition, or any other kind of exhortation. As we have already shown, in tactical communications, imperatives are to be read as directive calls. They refer primarily to changes of course, getting into various formations, engaging and disengaging the enemy, using certain equipment onboard, communicating or maintaining

radio silence, and so on. Most of them are meant for surface and underwater vessels, while some of them are specific to helicopter or jet fighter operations (take off and landing on aircraft carriers or helicopter carriers, underwater sonar search by transducer, etc.):

ABORT – cancel mission

ATTACK – attack with weapon indicated

BREAK DIP – raise transducer from the water (cease searching for underwater contacts)

BREAK RIGHT/LEFT – perform an immediate maximum performance turn in the direction indicated

BREAK OFF – discontinue approach but maintain contact unless otherwise indicated

CEASE FIRE – cease firing / do not open fire. It is an order similar to HOLD FIRE – cease firing / do not open fire.

CEASE REPORTING – information on the contact is no longer to be reported but plotting and assessment of classification, course, speed, altitude, identification and closest point of approach is to be continued; reporting is to recommence automatically for changes in classification, or identification, or for significant alterations of course, speed, or altitude.

CONFIRM – verify the existence of the contact designated  
CONTINUE PORT/LEFT or STBD/RIGHT – continue turning port/left or starboard/right at present rate of turn to magnetic heading indicated (3 figures) or continue turning to port/left or starboard/right for number of degrees indicated

DIP – conduct search with helicopter sonar and attack

ESTIMATE – provide a quick estimate of the height / depth / range / size of designated contact

HARD PORT/LEFT or STBD/RIGHT – alter heading to port/left or starboard/right in a tight turn in magnetic heading indicated (3 digit group) or number of degrees indicated (1 or 2 digit group followed by the word DEGREES)

KEEP CLEAR – keep clear of contact (do not approach its position)

MARK DIP – come to hover and commence sonar search

ORBIT – orbit position indicated

REPORT – report contact designated (frequently)

STEER – set magnetic heading indicated to reach the originator (the CTG) – used for homing orders.

STRANGLE – switch off equipment indicated

SWEEP – keep all-round search and report any new contacts

VECTOR – alter heading to magnetic / true heading indicated

VECTOR LEFT/RIGHT – alter course to left / right of present course

WAVE OFF – do not land, clear ship (further approach is dangerous)

ZIP LIP – hold communications on this circuit to a minimum

## **6. CONCLUSIONS**

Whenever two or more ships are operating together there will be a well-defined chain of command. The elements of this chain of command will need to communicate in order to carry out the assigned exercise or operation. Plain language is rarely used for tactical communications. Instead, a set of prowords, codewords, procedurewords will be exchanged among the participants in the respective maritime operations. This will insure a series of essential characteristics for the messages being exchanged: they will be short, clear and secure. They will be easy to receive, understand and put into practice. Learning and correctly using brevity codewords in voice reports is extremely important to ensure efficient naval tactical communications.

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