

What's the Origin of "Bravo Zulu"?

For years, *Approach* has run a column called "Bravo Zulu," a collection of short narratives telling about times when aviators did something right. This feature, we feel, balances the rest of the magazine, which consists of just the opposite: aviators talking about errors, miscues, screw-ups and near-disasters. Every once in a while, someone asks about the origin of the term.

It originated as a naval signal, conveyed by flag hoist or voice radio, meaning "well done." It eventually passed into the spoken and written vocabulary, attracting some myths and legends along the way. The one most frequently heard has Admiral Halsey sending it to ships of Task Force 38 during World War II. However, he could not have done this, since the signal did not exist at that time.

"Bravo Zulu" actually comes from the Allied Naval Signal Book (ACP 175 series), an international naval signal code adopted in 1949 after the creation of NATO. Until then, each navy had used its own signal code and operational manuals. World War II experience had shown that it was difficult, or even impossible, for ships of different navies to operate together unless they could readily communicate, and ACP 175 was designed to remedy this.

In the U.S. Navy signal code, used before ACP 175, "well done" was signaled as TVG, or "Tare Victor George" in the U.S. phonetic alphabet of that time. ACP 175 was organized in the general manner of other signal books, that is, starting with 1-flag signals, then 2-flag and so on. The 2-flag signals were organized by general subject, starting with AA, AB, AC, ... AZ, BA, BB, BC, ... BZ, and so on. The B- signals were called "Administrative" signals, and dealt with miscellaneous matters of administration and housekeeping. The last signal on the "Administrative" page was BZ, standing for "well done." At that time BZ was not rendered as "Bravo Zulu," but in each navy's particular phonetic alphabet. In the U.S. Navy, BZ was spoken as "Baker Zebra." Meanwhile, the International Civil Aviation Organization (ICAO) had adopted English as the international air-traffic-control language. They developed a phonetic alphabet for international aviation use, designed to be as "pronounceable" as possible by flyers and traffic controllers speaking many different languages. This was the "Alfa, Bravo, Charlie, Delta..." alphabet used today. The Navy adopted this ICAO alphabet in March 1956. It was then that "Baker Zebra" finally became "Bravo Zulu." -- *Courtesy, Naval Historical Center*

Bravo Zulu *December 1991*

VMFA-314

On the first morning of the ground offensive in southern Kuwait, Maj. Knutzen and Capt. Quinlan launched in two F/A-18A Hornets for an air-to-ground mission. En route to the target area, the section received a call from the Direct Air Support Center (DASC) that Marines were under fire from an Iraqi multiple-rocket launcher.

After contacting the FAC(A) from VMFA(AW)-121, the two Hornet pilots learned that the target area weather was 7,000 overcast, and that there was enemy anti-aircraft fire. Maj. Knutzen took his section under the overcast and found and destroyed the enemy rocket launcher.



Capt. Quinlan's battle-damaged F/A-18

The two Marine aircraft still had ordnance remaining and they flew south to a second rocket launcher and destroyed that position. As he came off that target, Capt. Quinlan felt his aircraft shudder as if he had gone through jet wash. As the Hornet rapidly

decelerated, he knew he had been struck by a shoulder-fired SAM.

Capt. Quinlan was at 200 knots and 6,000 feet over enemy territory. He did not know which engine had been hit and he left both throttles at military as he flew across Kuwait Bay to the Persian Gulf. Navy SAR had been notified.

Capt. Quinlan climbed into the smoke and clouds, which extended to 20,000 feet. He got an engine left caution, associated fire light, and he also saw smoke trailing behind his Hornet. Following NATOPS, Capt. Quinlan shut down his left engine, which

extinguished the fire, and he jettisoned all external stores.

Hearing that his wingman had been hit, Maj. Knutzen came around in a hard right turn to help just as his own aircraft was struck by a SAM. Maj. Knutzen saw flames over his shoulder and heard the engine left caution. He shut down the left engine and put out the fire with the extinguisher.

The two Hornets were still separated as they climbed out over the Gulf. As he continued his climb, Capt. Quinlan inadvertently entered an imbedded thunderstorm, which caused his canopy and wings to ice over. Continuing with NATOPS, he used the aircraft anti-ice system and was able to break into clear air over the Gulf.

Once VFR, Maj. Knutzen and Capt. Quinlan rejoined and flew a VMC single-engine approach to their home field instead of an IMC single-engine emergency approach to the divert field.

The two pilots coordinated with the Navy as they flew more than 200 miles on a single-engine bingo. Both aircraft stayed together until they made their individual approaches.

Capt. Quinlan's aircraft had two FODed engines, damage to the aft fuselage, and damage to the left vertical and horizontal stabilizers. Maj. Knutzen's Hornet had one FODed engine, damage to the aft fuselage, and damage to the left vertical and horizontal stabs. Both aircraft's tail-hook tips were blown off. ◀



Top to bottom: Capt. S. M. Quinlan, USMC; Maj. R. M. Knutzen, USMC.

