



Oregon Wing Civil Air Patrol

United States Air Force Auxiliary

ELT's Wild Ride Cut Short by Oregon Wing

By Major David Rudawitz

Portland, OR – Oregon Wing Urban Direction Finding (UDF) team members located and silenced a new ELT that was being shipped from the manufacturer to an Oregon based distributor today after a 12 hour search in the metropolitan Portland area. The ELT was located in a 50 foot trailer that had earlier been off-loaded from a west bound Burlington Northern, Santa Fe freight train.

The Air Force Rescue Coordination Center (AFRCC) at Langley AFB had been processing SARSAT distress beacon signals from the Portland metro area beginning at about 10 pm on Saturday February 7th, 2004. In Oregon, the AFRCC must notify Oregon Emergency Management (OEM) which then determines which agency (a county sheriff or CAP) will be tasked with locating the beacon. The Portland metro area is typically handled by CAP so OEM, in turn, requested AFRCC to alert CAP. LtCol James Veach, Oregon Wing Alerting Officer, was alerted a few minutes after midnight on February 8, 2004.

SARSAT coordinates relayed from the AFRCC put the possible beacon location just south of Portland International Airport (PDX). In addition, the primary signal was on 243.0 MHz which indicated an ELT or EPIRB as opposed to a PLB or interference. This area includes the Portland Air National Guard base (PANG), several marine supply and repair facilities along with various aircraft maintenance shops and hangers. This area is also adjacent to the Columbia River where there are a number of marinas as well. Several emergency beacons have been secured by CAP in this area including a bailout radio in the seat of one of the Alert 5 F-15s stationed at PANG. Familiar with the past history of this area, LtCol Veach took the mission as Agency Liaison and dispatched a UDF team consisting of MAJ David Rudawitz, 2LT Dave Gray and Cadet Russell Gray as radio operator.

A thorough ground sweep was conducted by the UDF team of the entire PDX area. The team was unable to detect any signal. Several high ground locations that offered overviews of portions of Portland and the surrounding area were checked, still with negative



UDF team standing by waiting for UPS and BNSF security. Left to right, Cadet Russell Gray, SM David Mandrell, Col Virginia Thompson, LtCol James Veach, 1LT Robert Randel and SM Stacey Sherwood

results. Additional SARSAT data from AFRCC relayed to LtCol Veach indicated that the signal had disappeared. This happens sometimes on accidental activations for a variety of reasons. Further, AFRCC had no pilot reports of an ELT signal in the area. At this point, the UDF team response was cancelled and they returned home.



BNSF Senior Special Agent Toy Washington opening up the trailer.

In order to insure that there really was no signal, it was decided to launch a DF equipped aircraft after daylight to conduct an electronic search of the Portland area. Mission Pilot CPT Don Butler assisted by 1LT Jim Brusseau and 2LT Ted Tanory took off in CAPFLIGHT 3617, one of Oregon Wing's Cessna 182s in the morning to conduct this search. Expecting no signal, the crew was surprised when they picked up a beacon a couple of miles to the west of the original coordinates provided by the AFRCC. Tracking this signal and carefully working with Portland Approach, as they were very close to PDX airspace, they were able to pinpoint the approximate location of the beacon which was a multi-modal railroad yard on the west side of the

Willamette River a few miles west of PDX.

With this new information, LtCol Veach assembled a new UDF team consisting of Col Virginia Thompson, 1LT Robert Randel, 2LT Dave Gray, SM David Mandrell, SM Stacey Sherwood and Cadet Russell Gray and then dispatched them to the area identified by the aircraft. The UDF team was able to acquire the signal when they came up to the Burlington Northern, Santa Fe (BNSF) Portland Hub yard. Working along the public roads surrounding the facility, the team confirmed that the signal source was located in the yard. Col Virginia Thompson made contact with the security gate personnel at the facility while LtCol Veach contacted Tom Pine, the OEM Duty Officer, and official Incident Commander for the mission representing the State of Oregon.



After obtaining permission from BNSF to enter the property, the team was able to locate the specific trailer that contained the beacon. This was an extremely difficult task as there were thousands of trailers, railroad cars and shipping containers at this facility, anyone of which could contain the beacon and all made of metal creating an extremely confusing area to pinpoint a radio signal. It seems that the subject trailer was a 50 foot truck trailer that is typically moved by a cab and on a railroad flatcar. It was owned by UPS and contained 2nd day parcels from the East coast. The trailer had been off loaded from a Chicago originated train on Saturday night around 10 pm, the same time the ELT signals began to be received by SARSAT. The unloading process can be rough enough to set off an aircraft ELT if the ELT is armed.

Some of the parcels removed from the trailer. Cadet Russell Gray in back-

Working as a team, the CAP UDF personnel, UPS and BNSF security staff unloaded the trailer, one box at a time. Each box was checked with DF equipment both inside and outside of the trailer. The team also checked for likely boxes, such as ones to/from a marine or aircraft facility or supplier. After about 12 feet of the trailer was unloaded and the beacon not yet found, a faint audible beeping sound was heard coming from the

Once the trailer was identified, in consultation with Mr. Pine of OEM and the AFRCC, it was determined that BNSF and UPS security would have to be notified and UPS would need to decide what to do next. Because of the number of agencies now involved and other security issues, LtCol Veach moved the mission Incident Command Post (ICP) to the Hub yard and was joined by Mr. Pine of OEM as the IC.



SM David Mandrell holding the box of ELTs. Behind him are (left to right), LtCol James Veach and Cadet Russell Gray.

By noon on Sunday, BNSF security had arrived and the BNSF personnel had removed the trailer to an open spot by the yard office so that it could be inspected. BNSF and UPS asked CAP to remain and assist in locating the beacon. This was approved by OEM and AFRCC. BNSF, as the carrier, unsealed and opened the trailer to see if the beacon might be immediately available. Once the door was cracked, it was obvious that the parcels had shifted and that it was going to require the unloading of the trailer to locate the offending parcel. BNSF then moved the trailer to a convenient loading dock in their facility where it could be unloaded and checked.

remaining parcels in the trailer. Of course, it was coming from near the bottom and several layers farther back. Peeling away the boxes, SM David Mandrell, antenna-less, off-frequency LEIper in hand, called out that he found a box from the Emergency Beacon Company (EBC). EBC is a major manufacturer of ELTs. Further, the beeping sound and radio signal was coming from the box.



Five ELTs were in the box and a package of batteries.



SM David Mandrell holding the ELT that had activated. 1LT Robert Randel (left) and an unidentified UPS Security officer (right) assisting.

UPS security took custody of the box and decided that they would open it up and have CAP silence the signal. When the box was opened, it was discovered that there were five brand new ELTs (EBC-502) in the box! This model of beacon includes an audible signal with its own power supply to indicate to the aircraft occupants that the ELT is activated and working. The team quickly determined which one was activated. MAJ Rudawitz, who is the Oregon Wing Emergency Services Officer and had also responded to the scene as part of the escalated response, briefed the UPS supervisor on CAP procedures for silencing a beacon. UPS directed that CAP go ahead and open the unit and disconnect the battery. In the process, the unit was inspected to find that it was in the ARM position and the shipping safety wire, designed to prevent such an accidental activation, was not installed nor present.

UPS took custody of the shipment and was going to contact EBC to determine what they wanted to do next. In the meantime, the CAP personnel assisted the UPS and BNSF personnel to reload the trailer. The UPS personnel were also instructed about the ELTs and to handle them carefully to avoid another accidental activation. OEM IC Tom Pine thanked the CAP personnel for their highly professional handling of this situation and for sticking with it until the signal was finally located and silenced.

Accidental activations of emergency beacons account for over 97% of the search missions initiated by the SARSAT system receiving an emergency beacon signal. These activations are caused by everything from a hard landing to a very old unit with a leaking battery. Oregon Wing UDF teams have found ELTs and EPIRBs in such unlikely places as junk yards, landfills, dumpsters and trashcans as well as the "usual" places like ships, planes and the homes of pilots. Even though the accidental activation rate is so high, every ELT mission is taken seriously as an emergency because, until the beacon is located, the accidental nature of the activation can not be assured. Less than one quarter mile from the location of the beacon found in this search is the largest US urban wilderness

park. Located right off the east bound final approach to PDX, a crashed airplane could have been the source of the emergency beacon signal.

Participation this mission involved members from several squadrons and Oregon Wing Headquarters staff as a team effort. 2LT Dave Gray and Cadet Russell Gray are members of the Washington County Composite Squadron. CPT Don Butler, 1LT Jim Brusseau and 2LT Ted Tanory are members of the Senior Metro Squadron. 1LT Robert Randel and SM Stacey Sherwood are members of the McMinnville Composite Squadron. SM David Mandrell is a member of the Linn-Benton Composite Squadron. LtCol James Veach, MAJ David Rudawitz and Col Virginia Thompson are members of Oregon Wing Staff. Col Virginia Thompson is a former Oregon Wing Commander and currently the Drug Demand Reduction Officer for Oregon Wing. Mr. Tom Pine is also 1LT Tom Pine IG Investigator for Oregon Wing Headquarters.



SM David Mandrell removing the ELT from the mounting bracket.