

2007-2008 GRAND JURY REPORT

Blythe Airport

Background

Blythe Airport is a public airport located six miles west of the City of Blythe, California serving Riverside County. The airport has two runways and is primarily used for general aviation. The east/west runway, 8/26, is 6,543 feet and the north/south runway, 17/35, is 5,800 feet. Landing from the east occurs on runway 26.

Currently, Blythe Airport is owned by Riverside County, hereafter referred to as "the County". In 1993, the County leased 8.3 acres of land and improvements at Blythe Airport to Wolfe Enterprises, a California Limited Liability Partnership, as the Fixed Base Operator (FBO). The leased premises consist of:

- A general aviation building containing 1,289 square feet.
- A main hanger containing 24,750 square feet.
- Two underground fuel tanks located within Blythe Airport.

The FBO provides pilot supplies, maintenance, plane rental, flight instruction and fuel seven days a week from 7:30 a.m. to 5:00 p.m. There is night service upon request. In April 1995, Wolfe Enterprises agreed to maintain and be responsible for the accurate and reliable operation of the Instrument Landing System (ILS)* that was in place at the airport.

**The ILS allows pilots to approach the airport for landing using only the plane's instruments. The Instrument Flight Rated pilots do not have any visual references in-flight or on approach and must acquire sight of the runway at the minimum distance altitude, which is 400 feet Above Ground Level at the Blythe Airport in order to land. The ILS at the Blythe Airport was used for training and calibration purposes only.*

Wolfe Enterprises is licensed by the Federal Communication Commission (FCC) to utilize a Unicom (Universal Communications Channel) on frequency 122.8 Mhz, which allows pilots to state their position, landing or departure intentions, obtain airport altimeter readings and wind information and communicate with other aircraft operating in the airport environment.

Through a lease agreement dated January 31, 1997, the County granted the City of Blythe, hereafter referred to as “the City”, management and operational authority over the leased premises. Pursuant to Section 7 of the County/City lease agreement, the City shall “...prepare, negotiate and execute sub-lease agreements.” On June 13, 2000, the County, City, and Wolfe Enterprises agreed to amend the lease agreement dated June 15, 1993. This changed Wolfe Enterprise’s relationship from lessee to sub-lessee.

Blythe Energy Plant’s Impact on Aviation Safety

The following timeline documents the adverse impacts on aviation safety at Blythe Airport from the Blythe Energy Plant (BEP1). The timeline identifies the steps that were utilized to confirm the safety issues, develop mitigation measures and assign implementation.

01/31/2001 The California Energy Commission (CEC) authorized the construction and operation of BEP1 at a location that was one mile east of the Blythe Airport. BEP1 commenced full operations December 29, 2003. An extensive review of the plans and the potential adverse impact on aircraft navigation was conducted. The agencies that approved the plans and agreed that the location of BEP1 would not be a hazard to aircraft navigation at the Blythe Airport were:

- CEC.
- California Department of Transportation (CalTrans), Aeronautics Division.
- Federal Aviation Administration (FAA).
- Riverside County Airport Land Use Commission.
- City of Blythe.

Even though FAA approved the location of the BEP1, they expressed concern that aircraft using the ILS localizer to land on runway 26 may encounter unexpected and severe turbulence and recommended that the ILS be shut down. The cooling towers and heat recovery steam plume generated from BEP1 caused the turbulence.

6/13/2003 – 8/4/2004 The CEC staff received complaints from six experienced pilots (three private individuals, two from federal agencies, and one from BEP1) regarding moderate to severe turbulence encountered when flying over BEP1 cooling towers while attempting to land on runway 26. The CEC staff conducted an investigation to determine and confirm the severity of the turbulence. This investigation included:

- a. On three separate occasions, a CEC staff aviation safety expert and experienced pilot flying over the BEP1 cooling towers experienced moderate turbulence in a twin-engine airplane at approximate 500 feet above ground;
- b. A BEP1 expert pilot flying through the thermal plume in a twin-engine airplane reported that the turbulence was moderate; and
- c. The CEC and BEP1 staff conducted modeling studies to evaluate the wind speed and temperature of the cooling tower exhaust. The CEC staff concluded, from the modeling studies, over flights by a CEC staff aviation safety expert and a BEP1 expert pilot, that encounters with the power plant plume could adversely affect aircraft operations.

See Photograph

10/04/2004 The CEC staff held a public workshop in Blythe to develop recommendations to address the safety concerns from experienced pilots who had encountered turbulence over BEP1 when attempting to land on runway 26. In addition to the public, the following stakeholders attended:

- Blythe Airport Manager.
- Blythe City Manager.
- CalTrans, Aeronautics Division.
- FAA.
- Riverside County.
- Florida Power and Light (FPL), parent of BEP1.
- CEC Consultants and staff.

The recommendations from the meeting were:

1. Remove, or decommission, the existing ILS on runway 26 and install a new ILS on runway 17 or another appropriate runway/; and.
2. FAA append a warning to the Airport Surface Observation System (ASOS) regarding the power plant's thermal plume to the Blythe Airport's radio transmission from the airport.

07/19/2005 The CEC staff facilitated a meeting of representatives from the FAA, City of Blythe, CalTrans Aeronautics, FPL and CEC aviation consultants. This meeting resulted in agreements on additional mitigation measures and assigning their implementation. CEC directed the BEP1 to address the potential impacts of the power plant on aircraft using the Blythe Airport. FPL agreed to implement, fund and coordinate the following:

- a. Append a thermal plume avoidance advisory to the existing ASOS;
- b. Designate a different calm wind runway;
- c. Decommission the ILS; and
- d. Work with the City of Blythe to change the airport traffic pattern from-left hand to right-hand, funding of the City's environmental review of the designation of a calm wind runway and/or change in the traffic pattern at the airport.

09/02/2005 – 11/02/2005 The FAA determined that the ILS at the Blythe Airport was not operating within federal requirements and directed the City of Blythe to shut-off the ILS. Subsequently, the City requested the FBO's compliance with the FAA directive. The ILS localizer and glide slope were shut-off on November 3, 2005.

02/07/2006 CEC sent a letter to the City of Blythe that summarized the measures the stakeholders agreed upon to mitigate the hazard to aircraft flying over the BEP1. The following measures and implementing agencies are:

1. The FAA would publish a warning advisory to pilots using the Blythe Airport Notice to Airmen Manual; and

2. FAA would issue, in the Los Angeles and Phoenix section, an aeronautical chart containing warnings to avoid direct over flight of the BEP1.

The City of Blythe would:

- a. Install a Super Automated Weather Observation System (AWOS)*, which BEP1 agreed to purchase and maintain for the first three years;

**The Super AWOS is a radio announcement transmitted at the airport that will advise pilots to avoid over flight of the BEP1 on the approach to runway 26 and thus avoid possible interference from cooling tower plumes.*

- b. Obtain an operational frequency for the Super AWOS; and
- c. Identify a calm wind runway and change the landing pattern from left-hand to right-hand. BEP1 would provide funding for an environmental study if required.

Findings

1. In compliance with a CEC directive dated February 6, 2006, the City of Blythe installed and activated a Super AWOS on October 24, 2006. The Super AWOS was shut-off on March 16, 2007, because the FBO filed a complaint with FCC that the Super AWOS transmissions were interfering with FBO licensed Unicom frequency 122.8 Mhz. As a result, pilots are not warned of the plume from BEP1.
2. As of June 1, 2008, the City of Blythe had not complied with the CEC directive to designate a calm wind runway and change the traffic pattern from left-hand to right-hand by April 15, 2007. BEP1 has agreed to pay for any environmental analysis to determine the feasibility of changing the designation.
3. Currently, Wolfe Enterprises has a FCC license to operate a Unicom at the airport on frequency 122.8 Mhz. The City of Blythe has been directed by CEC to install a Super AWOS Unicom at the airport, but does not have an FCC license. In addition, FAA guidelines do not permit two different warning systems operating at an uncontrolled airport.

Recommendations

**Riverside County Board of Supervisors
City of Blythe
Blythe City Airport Manager**

The City of Blythe and the Blythe Airport Manager must take immediate action to implement the mitigation measures at the Blythe Airport that were directed by the CEC and have been funded by FPL. Specifically they must:

- Vigorously pursue an agreement with Wolfe Enterprises to purchase and/or transfer Wolfe Enterprise's FCC license (frequency 122.8 Mhz) to the City of Blythe for operation of the Super AWOS Unicom.
- Reactivate the Super AWOS that has been purchased by BEP1 that will notify pilots using Blythe Airport to avoid direct over flight of the power plant.
- Conduct an environmental review that has been funded by the BEP1, of the designation of a calm wind runway and/or a change in the traffic-landing pattern at the airport.

**Report Issued: 06/19/08
Report Public: 06/23/08
Response Due: 09/17/08**



BEP1 – Runway 26, Blythe Airport (Picture taken January 2003.)