

DOCKETED

Docket Number:	09-AFC-07C
Project Title:	Palen Solar Power Project - Compliance
TN #:	202580
Document Title:	Email Re: ASRS Solar Panel Glare Pilot Reports, dated March 14, 2014
Description:	with Attachment: Environmental Visual Flight Hazard DBOL Reports
Filer:	Alicia Campos
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	6/24/2014 10:00:24 AM
Docketed Date:	6/24/2014

From: Douglas, Joseph@Energy
Sent: Friday, March 14, 2014 2:30 PM
To: Adams, Jim@Energy
Subject: FW: ASRS Solar Panel Glare Pilot Reports
Attachments: Environmental Visual Flight Hazard_DBOL Reports.doc

-----Original Message-----

From: CONNELL, LINDA (ARC-TH) [<mailto:linda.j.connell@nasa.gov>]
Sent: Friday, March 14, 2014 2:09 PM
To: Douglas, Joseph@Energy
Cc: Wichner, David (ARC-TH)[BOOZ ALLEN HAMILTON INC]; DOYLE, DENNIS J. (ARC-TH)[BOOZ ALLEN HAMILTON INC]
Subject: ASRS Solar Panel Glare Pilot Reports

Joseph,

I received your email and phone message. I left you a phone message today, so it was good to hear from you right away and discuss this important aviation safety concern. As I mentioned in our phone discussion today, we wanted to provide you with the actual, de-identified reports that are in our ASRS Database Online at <http://asrs.arc.nasa.gov>. The two reports describe two separate events that were felt to be safety concerns.

This is what our office used to provide an ASRS system's Alert Message - For Your Information Notice. I think you were brought into the loop on this original information from the Dept of Aviation. We attached two reports to that Alert but they are shortened for the distribution. I think you saw those originals.

We have the full reports attached here that provide all the ASRS Expert Analyst's coding fields about location, day, timing, etc. Due to the confidentiality protections of this program, we only provide month/year, quartile of the day, etc.

If you check in the full reports for PLACE you will see in the first report, for example:

Place

Locale Reference.Airport: BVU.Airport

State Reference : NV

Relative Position.Angle.Radial : 225

Relative Position.Distance.Nautical Miles : 10 Altitude.MSL.Single Value : 6000 This will help you pinpoint the location that the person reporting provided to us. Radial is compass heading from the Airport. Also, our ASRS Analyst provided a fairly detailed location description in the SYNOPSIS at the bottom of the report.

If you check in the TIME/DAY section, you will see:

Time / Day

Date : 201308

Local Time Of Day : 1201-1800

This is 2013 in 08-August and time quartile noon to 6PM. However, the narrative provide by the person may say something about time.

If you need further clarification or would like to talk more, please call or email. We will keep a "heads up" on any additional reports related to this safety issue.

Regards,
Linda

Linda Connell, NASA ASRS Director
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ASRS Director Office (408) 541-2827
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ACN: 1109473

Time / Day

Date : 201308
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : BVU.Airport
State Reference : NV
Relative Position.Angle.Radial : 225
Relative Position.Distance.Nautical Miles : 10
Altitude.MSL.Single Value : 6000

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 50
Light : Daylight
Ceiling.Single Value : 22000

Aircraft

Reference : X
ATC / Advisory.Center : ZLA
Aircraft Operator : Personal
Make Model Name : Small Transport
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Personal
Flight Phase : Initial Climb
Route In Use : Direct
Airspace.Class E : ZLA

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Commercial
Experience.Flight Crew.Total : 4500
Experience.Flight Crew.Last 90 Days : 100
Experience.Flight Crew.Type : 75
ASRS Report Number.Accession Number : 1109473
Human Factors : Physiological - Other
Human Factors : Distraction
Analyst Callback : Attempted

Events

Anomaly.Inflight Event / Encounter : Other / Unknown
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Environment - Non Weather Related
Primary Problem : Environment - Non Weather Related

Narrative: 1

During the initial climb after a VFR departure from BVU (Boulder City airport) via GPS to the DAG VOR on an approximately heading of 225 the Co-pilot and I were distracted and momentarily blinded by the sun reflecting off of mirrors at the solar power plant facility located near the CA-NV border near the town of Primm. This solar power plant which I believe is still under construction consists of three massive circular arrays of thousands of mirrors oriented inward toward a central tower. As soon as we cleared the mountains southwest of BVU from 6,000 to 12,000 FT MSL still climbing there were three very bright reflections (one from each solar array) of the sun into the pilots and copilots eyes. The reflection from the northernmost array was the brightest and the largest and grew in size as we flew closer to the facility.

The flight path of our aircraft passed overhead of this facility. At its brightest neither the pilot nor co-pilot could look in that direction due to the intense brightness. From the pilot's seat of my aircraft the brightness was like looking into the sun and it filled about 1/3 of the co-pilots front windshield. In my opinion the reflection from these mirrors was a hazard to flight because for a brief time I could not scan the sky in that direction to look for other aircraft.

Synopsis

A flight crew experienced a very bright, intense light from three solar complexes which interfered with their ability to scan for traffic while climbing westbound between 6,000 and 12,000 feet along J60/V12 southwest of NATEE Intersection.

ACN: 1108698

Time / Day

Date : 201308
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZLA.ARTCC
State Reference : CA
Altitude.MSL.Single Value : 36000

Aircraft

Reference : X
ATC / Advisory.Center : ZLA
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Cruise
Airspace.Class A : ZLA

Person

Reference : 1
Location Of Person.Facility : ZLA.ARTCC
Reporter Organization : Government
Function.Air Traffic Control : Enroute
Qualification.Air Traffic Control : Fully Certified
ASRS Report Number.Accession Number : 1108698
Human Factors : Physiological - Other
Human Factors : Distraction

Events

Anomaly.ATC Issue : All Types
Anomaly.Inflight Event / Encounter : Other / Unknown
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Physical Injury / Incapacitation

Assessments

Contributing Factors / Situations : Environment - Non Weather Related
Primary Problem : Environment - Non Weather Related

Narrative: 1

There is a solar farm south of Las Vegas which is in Sector 6 and Sector 37's airspace. Daily, during the late morning and early afternoon hours we get complaints from pilots of aircraft flying from the northeast to the southwest about

the brightness of this solar farm. They usually ask us what it is because they don't know. On this particular morning, an air carrier complained about the brightness and reiterated that it was "nearly blinding." I reported this to Management and was told that they were going to do nothing about it. They then suggested that I tell the pilot to report it through the safety reporting system that they have and to report it myself. I have no idea what can be done about this situation, but being a passenger on an aircraft that flew through this airspace and saw it for myself, I would say that something needs to be done. It is extremely bright and distracting.

Synopsis

ZLA Controller relayed concerns expressed by flight crews overflying a solar farm south of LAS. Flight crews have noted the facility causes nearly blinding reflection.