

## SEAC4RS - ER-2 #809 09/13/13 Science Report

**Aircraft:** [ER-2 - AFRC #809](#) ([See full schedule](#))

**Date:** Friday, September 13, 2013

**Mission:** SEAC4RS

**Mission Location:** Gulf of Mexico

**Mission Summary:**

### Flight Report – SEAC4RS ER-2, **September 13, 2013**

Prepared by: Richard Ferrare ([richard.a.ferrare@nasa.gov](mailto:richard.a.ferrare@nasa.gov))

**Purpose of flight:** The science goals for this flight were to: 1) acquire remote sensing data over cirrus associated with TS Ingrid, 2) perform cirrus radiation study coincident with the DC-8, 3) acquire eMAS data over cirrus to support DC8 convection studies, 4) acquire in situ data during dips to study UT/LS.

**Pilot:** Denis Steele

**Takeoff:** 10:31 CDT

**Duration:** 8.0 hours

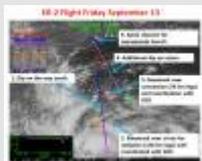
**Notes:**

The ER-2 flew first SSE over the Gulf toward the Bay of Campeche. On the way, the aircraft performed a dip down to about 48 kft. The dip was intended to extend down to 45 kft, but ATC did not provide permission to dip this low. After climbing back to high altitude, the ER-2 then turned back north and flew north to meet the DC-8 for the radiation plan. There was a delay of about 30 minutes as the ER-2 and DC-8 worked out the proper coordinate before performing this coincident radiation track. The aircraft had excellent coordination around this radiation track for the two complete circuits around this radiation racetrack (150 km legs). At this location cirrus was present; however, this cirrus was likely more due to local convection than from the convective outflow associated with TS Ingrid. After the radiation legs, both aircraft then flew north to fly over convective cells. The ER-2 performed a racetrack pattern with 50 km legs over the first portion of this coordinated pattern, then flew a flower-shaped?rosette pattern over the DC-8 during the latter portion of the pattern over the convective cells. After this, the ER-2 returned to Ellington. Along the way back to base, the ER-2 dipped to 41 kft and also performed a spiral over Ellington to support an ozonesonde launch at the airfield.

**Aircraft and instruments:** All instruments appear to have worked nominally as far as limited in-flight and quick-look analyses showed. All instruments are ready for the next flight.

**Images:**

### ER2 September 13



[Read more](#)

**Submitted by:** Richard Ferrare on 09/15/13

**File:**

 [seac4rs\\_er2\\_13\\_Sep.pdf](#)

**Related Flight Report:**

### ER-2 #809 09/13/13

**Flight Number:** 13-9065

**Payload Configuration:** SEAC4RS

**Nav Data Collected:** Yes

**Total Flight Time:** 8 hours

Submitted by: Chris Miller on 09/15/13

**Flight Segments:**

<b>From:</b>	EFD	<b>To:</b>	EFD
<b>Start:</b>	09/13/13 15:31 Z	<b>Finish:</b>	09/13/13 23:32 Z
<b>Flight Time:</b>	8 hours		
<b>Log Number:</b>	<a href="#">132301</a>	<b>PI:</b>	Kent Shiffer
<b>Funding Source:</b>	Hal Maring - NASA - SMD - ESD Radiation Science Program		
<b>Purpose of Flight:</b>	Science		
<b>Comments:</b>	The objective for this coordinated flight with the DC-8 was measurements of cirrus and convection within the outflow from Tropical Storm Ingrid in the Bay of Campeche. The DC-8 and ER-2 flew well into the Mexican FIR, and were in the vicinity of two NOAA aircraft and the USAF Hurricane Hunters at various times. The ER-2 returned in good shape and is ready for the next flight planned for 9/16.		

**Flight Hour Summary:**

	<b>132301</b>
<b>Flight Hours Approved in SOFRS</b>	166
<b>Total Used</b>	164.6
<b>Total Remaining</b>	1.4

**132301 Flight Reports**

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
<a href="#">08/01/13</a>	13-9048	Check	3	3	163	
<a href="#">08/02/13 - 08/03/13</a>	13-9049	Science	6.5	9.5	156.5	
<a href="#">08/06/13 - 08/07/13</a>	13-9050	Science	8.4	17.9	148.1	
<a href="#">08/08/13</a>	13-9051	Science	7.2	25.1	140.9	
<a href="#">08/12/13</a>	13-9052	Science	7.9	33	133	
<a href="#">08/14/13</a>	13-9053	Science	6	39	127	
<a href="#">08/16/13</a>	13-9054	Science	7.8	46.8	119.2	
<a href="#">08/19/13</a>	13-9055	Science	8.1	54.9	111.1	
<a href="#">08/21/13</a>	13-9056	Science	7.3	62.2	103.8	
<a href="#">08/23/13</a>	13-9057	Science	7.7	69.9	96.1	
<a href="#">08/27/13</a>	13-9058	Science	7.2	77.1	88.9	
<a href="#">08/30/13</a>	13-9059	Science	7.4	84.5	81.5	
<a href="#">09/02/13</a>	13-9060	Science	8.2	92.7	73.3	
<a href="#">09/04/13</a>	13-9061	Science	8.4	101.1	64.9	
<a href="#">09/06/13 - 09/07/13</a>	13-9062	Science	8	109.1	56.9	
<a href="#">09/09/13 - 09/10/13</a>	13-9063	Science	8.1	117.2	48.8	

<a href="#">09/11/13 - 09/12/13</a>	13-9064	Science	7.6	124.8	41.2
<a href="#">09/13/13</a>	13-9065	Science	8	132.8	33.2
<a href="#">09/16/13</a>	13-9066	Science	8	140.8	25.2
<a href="#">09/18/13</a>	13-9067	Science	7.9	148.7	17.3
<a href="#">09/22/13</a>	13-9068	Science	8.1	156.8	9.2
<a href="#">09/23/13</a>	13-9069	Science	7.8	164.6	1.4

*Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.*

Page Last Updated: April 22, 2017

Page Editor: Brad Bulger

NASA Official: Bruce A. Tagg

---

**Source URL:** [https://airbornescience.nasa.gov/science\\_reports/SEAC4RS\\_-\\_ER-2\\_809\\_09\\_13\\_13\\_Science\\_Report#comment-0](https://airbornescience.nasa.gov/science_reports/SEAC4RS_-_ER-2_809_09_13_13_Science_Report#comment-0)