



<b>Date of Event (UTC)</b> Jan 17, 2023	<b>Review Date</b> Jan 16, 2025
<b>Time of Event (UTC)</b> 1639 (UTC)	<b>Time of Event (LCL)</b> 1039 (CST)
<b>Investigation Number</b> CEN23FA084	<b>Keys Number</b> 106588

CHART    AIRFIELD    SIAP/SID/STAR

### ATC Services Review Worksheet

*A review of the ATC services provided in the above incident/accident was conducted by an ATC Investigator. Investigative work was limited to a review of the factual data collected over the course of the investigation and consideration of the current rules, regulations, and procedural guidance current at the time. The ATC investigator did not travel to the scene, nor to any ATC facilities in support of this investigation. Additionally, the ATC investigator did not conduct any personnel interviews, and all investigative work was conducted from their assigned office.*

**ATC Investigator:** Casey Ogden, ATC Accident Investigator  SRT RELEASE APPROVED

<b>Involved ATC Facilities:</b> Facility 1: ZHU ARTCC	Facility 2:	Facility 3:	Facility 4:
<b>Involved Aircraft:</b> Aircraft 1: N963MA	Aircraft 2:	Aircraft 3:	Aircraft 4:

<input checked="" type="checkbox"/> Data Requested	<input type="checkbox"/> NOTAM Issues	<b>Surveillance Data Source</b>	<b>Audio Data Source</b>
<input checked="" type="checkbox"/> ATC Procedures	<input type="checkbox"/> Safety Improvements	FAA ADS-B Data	FAA Certified Audio

### PRELIM Summary Information - SAFTI

*On January 17, 2023, about 1039 central standard time, a Piper PA-46-350P JetProp DLX airplane, N963MA, sustained substantial damage when it was involved in an accident near Yoakum, Texas. The pilot and copilot sustained fatal injuries. Two passengers sustained fatal injuries and one passenger sustained serious injuries. The airplane was operated as a Title 14 Code of Federal Regulations Part 91 business flight.*

### Accident Location - SAFTI



## ATC Service Review Summary

A review of Air Traffic Control (ATC) services provided by Houston Air Route Traffic Control Center (ZHU ARTCC) was conducted and the following minor deficiencies were noted (references are included below under "ATC Procedural References"):

- ATC failed to disseminate a relevant Center Weather Advisory (CWA) to the pilot of N963MA as required.
- Weather conditions reported by the pilot of N963MA were not entered as a Pilot Weather Report (PIREP) as required.

## ATC Supporting Data

- ATC voice communications-Certified (15 minutes (+/-) first and last contact. Include all intra/inter phone recordings, and landline recordings
- FAA FALCON Replay
- FAA Mandatory Occurrence Report (MOR)
- FAA ADS-B Data
- FAA Services Rendered TELCON (SRT) (preliminary findings)
- FAA Aircraft Accident Package
- ZHU Standard Operating Procedures (SOP)

## ATC Procedural References

FAA Order JO 7110.65Z, Air Traffic Control, stated in part:

### 2-1-2. DUTY PRIORITY

- Provide and/or solicit weather information in accordance with procedures and requirements outlined in this order.

NOTE- Controllers are responsible to become familiar with and stay aware of current weather information needed to perform ATC duties.

### 2-6-2. PIREP SOLICITATION AND DISSEMINATION

- Solicit PIREPs when requested, deemed necessary or any of the following conditions exists or is forecast for your area of jurisdiction:

- Ceilings at or below 5,000 feet. These PIREPs must include cloud bases, tops and cloud coverage when available. Additionally, when providing approach control services, ensure that at least one descent/climb-out PIREP and other related phenomena is obtained each hour

### 2-6-6. HAZARDOUS INFLIGHT WEATHER ADVISORY

Controllers must advise pilots of hazardous weather that may impact operations within 150 NM of their sector or area of jurisdiction. Hazardous weather information contained in the advisories includes Airmen's Meteorological Information (AIRMET), Significant Meteorological Information (SIGMET), convective SIGMET (WST), Urgent Pilot Weather Reports (UUA), and Center Weather Advisories (CWA). Facilities must review alert messages to determine the geographical area and operational impact of hazardous weather information. Advisories are not required if aircraft on your frequency(s) will not be affected.

- Controllers must broadcast a hazardous inflight weather advisory on all frequencies, except emergency frequency, upon receipt of hazardous weather information. Controllers are required to disseminate data based on the operational impact on the sector or area of control jurisdiction. Pilots requesting additional information must be directed to contact the nearest Flight Service.

NOTE- The inclusion of the type and number of weather advisory responsible for the hazardous inflight weather advisory is optional.

### PHRASEOLOGY-

ATTENTION ALL AIRCRAFT. HAZARDOUS WEATHER INFORMATION (SIGMET, Convective SIGMET, AIRMET, Urgent Pilot Weather Report (UUA), or Center Weather Advisory (CWA), Number or Numbers) FOR (specific weather phenomenon) WITHIN (geographical area), AVAILABLE ON FLIGHT SERVICE FREQUENCIES.

## Airport / Airfield Information

YOAKUM MUNI (T85) 1 N UTC-6(-5DT) N29°18.79' W97°08.31'  
365 B NOTAM FILE CXO

RWY 13-31: H3444X60 (ASPH) S-12 MIRL 0.7% up NW  
RWY 13: Pole.  
RWY 31: Pole.

AIRPORT REMARKS: Unattended. Rwy 13 and Rwy 31 mrkgs faded.

### OpsVue Data

The below information and included graphics were developed using OpsVue data which is track data only. PASSUR's OpsVue uses NextGen Data which includes flight identification and location data for advisory purposes only. This NextGen Data is a multi-sensor system that aggregates and georeferences FAA data sources including data from FAA ASDE-X and ASSC systems, FAA Terminal and En Route Radars, the FAA certified ADS-B Network and Flight Plan data from the En Route Automation Modernization (ERAM) system. The reported altitude is derived from the reported pressure altitude, adjusted for the local pressure reported with the Rapid Update Cycle (RUC) data within the Continental United States (CONUS). Outside of the CONUS, only pressure altitude is reported. The accuracy of altitude data can vary, sometimes up to several hundred feet, however trend information (ie; rates of climb and descent) is considered accurate and reliable.

### FAA Certified ADS-B Data

The below information and included graphics were developed using certified Automatic Dependent Surveillance - Broadcast (ADS-B) data provided by the FAA. These data are direct source data that has extracted and exported by the FAA's Office of Accident Investigation and Prevention (AVP-100) using the SBS Analysis Tool (SAT). A surveillance system in which an aircraft or vehicle to be detected is fitted with cooperative equipment in the form of a data link transmitter. The aircraft or vehicle periodically broadcasts its GPS-derived position and other information such as velocity over the data link, which is received by a ground-based transmitter/receiver (transceiver) for processing and display at an air traffic control facility. ADS-B data is subject to coverage limitations like any other system that relies on line-of-sight signal transmission, so there can be portions of a flight track that are unavailable, or will have to be combined with other source data for the most complete flight track.

### **Pertinent NOTAM Information**

None

### **Flight Track Information**

OpsVue and ADS-B data were used in reviewing this event. N963MA was first observed in track data at 0740:01 CST still on the ground at Memphis International Airport (MEM), Memphis, TN. Track data indicated that N963MA departed runway 36, made a left turn out climbing to a cruise altitude of flight level (FL) 260 and flying southwest bound for approximately 475 nautical miles (nm). The track data then showed the aircraft began their en route descent and maneuvered consistent with their setting up for the RNAV RWY 31 approach into Yoakum Municipal Airport (T85). The flight was tracking on course and consistent with the RNAV RWY 31 approach, until the aircraft was about 1.65 nm from the runway threshold and the track began to drift slightly right for about .85 nm (about .80 nm from the runway threshold) when the aircraft entered right turn climbing about 400 feet then descending about 200 feet before the track turned left and climbed about 400 feet once again, then entering a rapid descent to the right then left, until track data was lost.

First Track Data: 0740:01 CST LAT =35.0556793212891 LON = -89.9848327636719

Last Track Data: 1036:58 CST LAT =29.3052997589111 LON = -97.1123809814453

### **ATC Communications**

The following is a summary of communications between the pilot of N963MA and the ZAU ARTCC sector 87 radar (R87) controller. All times are in central standard time (CST) and are rounded to the nearest minute for brevity. The certified audio recordings for this accident are included in the public docket.

#### TIME TRANSMISSION

- 1016 N963MA first contacted the R87 controller descending out of 12,000 feet for 10,000 feet. The R87 controller provided the Victoria (VCT) altimeter and instructed the pilot do descend to 3,000 feet. The pilot acknowledged.
- 1022 The R87 controller asked the pilot of N963MA what approach they were requesting into T85, and the pilot requested the RNAV RWY 31 approach (included below), and commented that the weather showed broken at 3,000 feet but it looked pretty solid.
- 1023 The pilot then reiterated their request for the RNAV RWY 31 approach and requested to proceed direct to FOSAL [FOSAL was the initial approach fix (IAF) for the RNAV RWY 31 approach). The R87 controller cleared N963MA direct to COGAL initially, but immediately corrected themselves and cleared them to FOSAL. The pilot acknowledged.
- 1025 The R87 controller instructed the pilot of N963MA to maintain 3,000 feet until FOSAL and cleared them for the RNAV RWY 31 approach into T85. The pilot responded with a correct readback.
- 1026 The R87 controller instructed the pilot of N963MA to report canceling their instrument flight rules (IFR) on frequency or through Flight Service Station (FSS) and approved a frequency change. N963MA acknowledged.

----- There were no further recorded transmissions from N963MA -----

### **Included Figures**

*Figure 1. Overhead view of the entire accident flight track.*

*Figure 2. Overhead view of the final segment of the accident flight track.*

*Figure 3. Profile view of the final segment of the accident flight track.*

*Figure 4. Profile view of the final segment of the accident flight track as viewed looking down the final approach course.*

### **Docket Attachments**

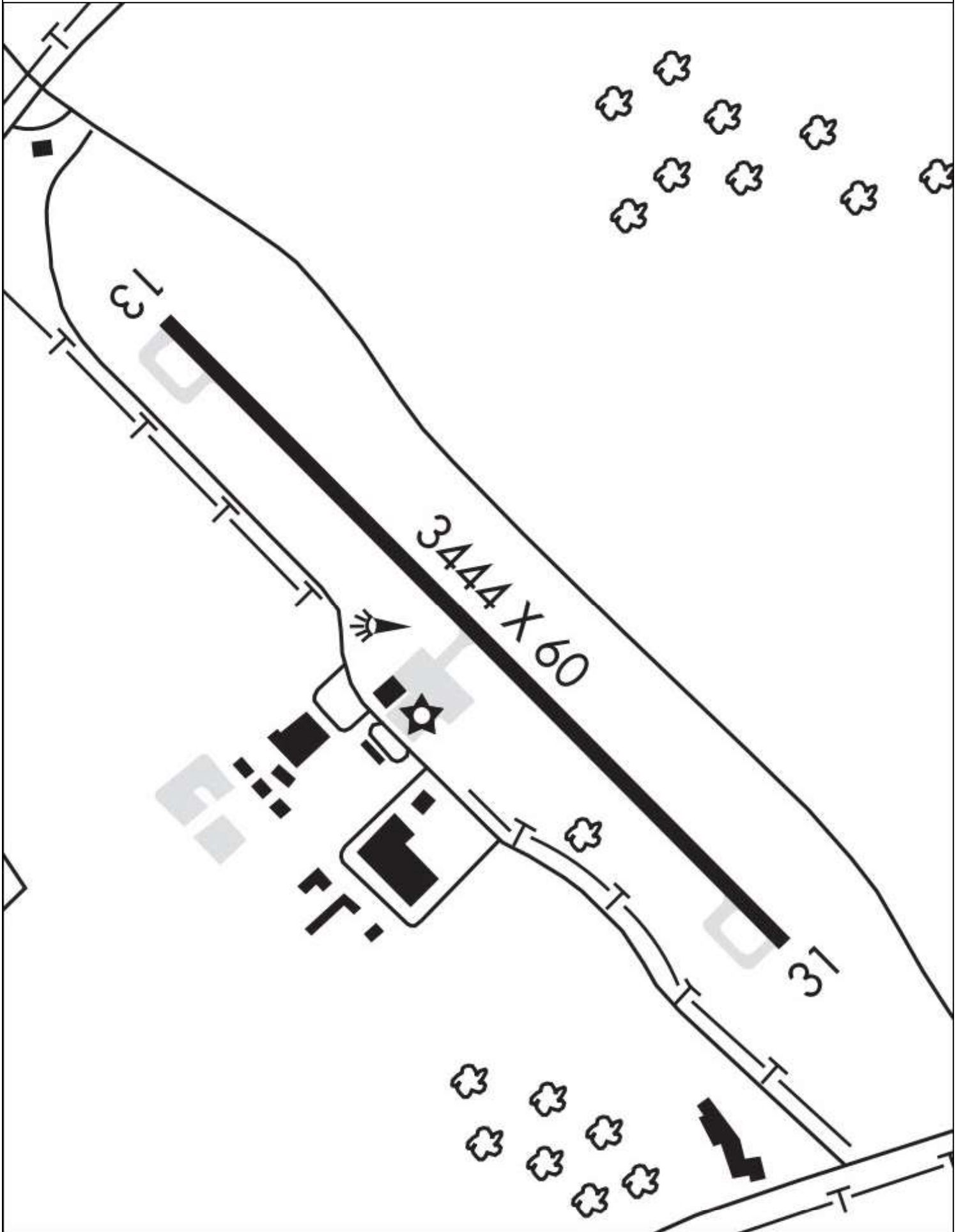
- *FAA certified ATC audio recordings*
- *FAA Aircraft Accident Package*
- *FAA Certified ADS-B data*







AIRFIELD DIAGRAM



IAP / STAR / SID

YOAKUM, TEXAS

AL-6157 (FAA)

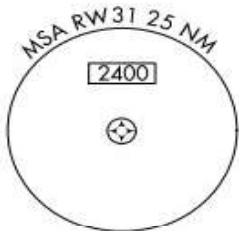
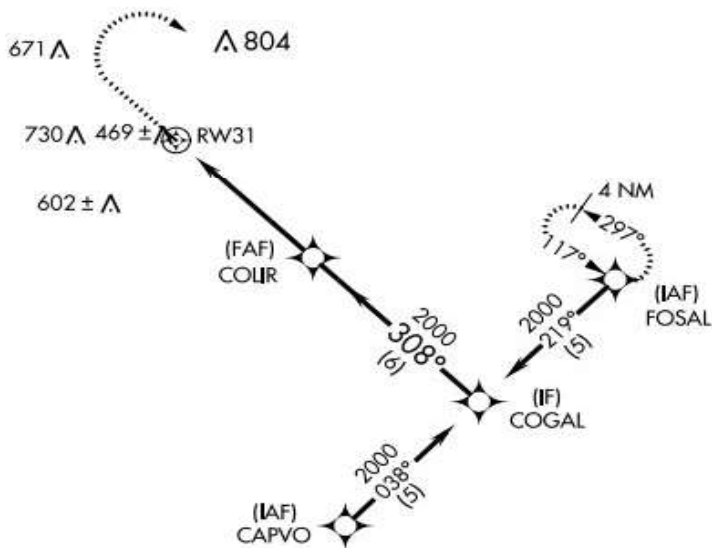
22363

APP CRS	Rwy Idg	3444
308°	TDZE	363
	Apt Elev	365

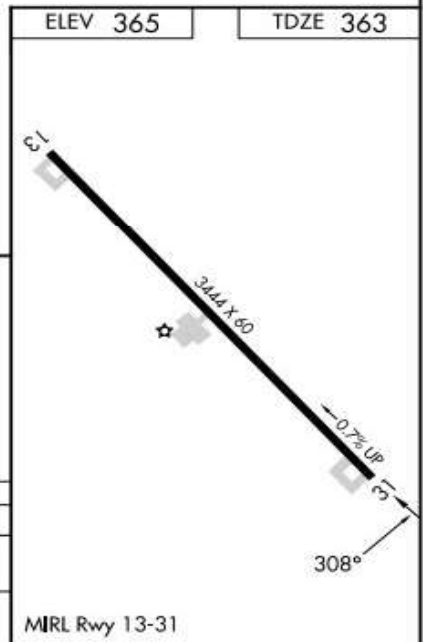
**RNAV (GPS) RWY 31**  
YOAKUM MUNI (T85)

RNP APCH-GPS.		MISSED APPROACH: Climb to 1000 then climbing right turn to 2000 direct FOSAL and hold.
▼	Use Victoria Rgnl altimeter setting. Procedure NA at night.	
▲ NA	Rwy 31 helicopter visibility reduction below ¾ SM NA.	
VCT ASOS	HOUSTON CENTER	CTAF
119.025	132.8 343.7	122.9

**NOT FOR NAVIGATIONAL USE**



1000	2000	FOSAL	COLIR	COGAL
↑	↷	✧		
RW31		Procedure Turn NA		
5 NM		6 NM		
CATEGORY	A	B	C	D
LNAV MDA	840-1	477 (500-1)	840-1¼ 477 (500-1¼)	NA
CIRCLING	920-1	555 (600-1)	1200-2½ 835 (900-2½)	NA



SC-3, 26 DEC 2024 to 23 JAN 2025

SC-3, 26 DEC 2024 to 23 JAN 2025

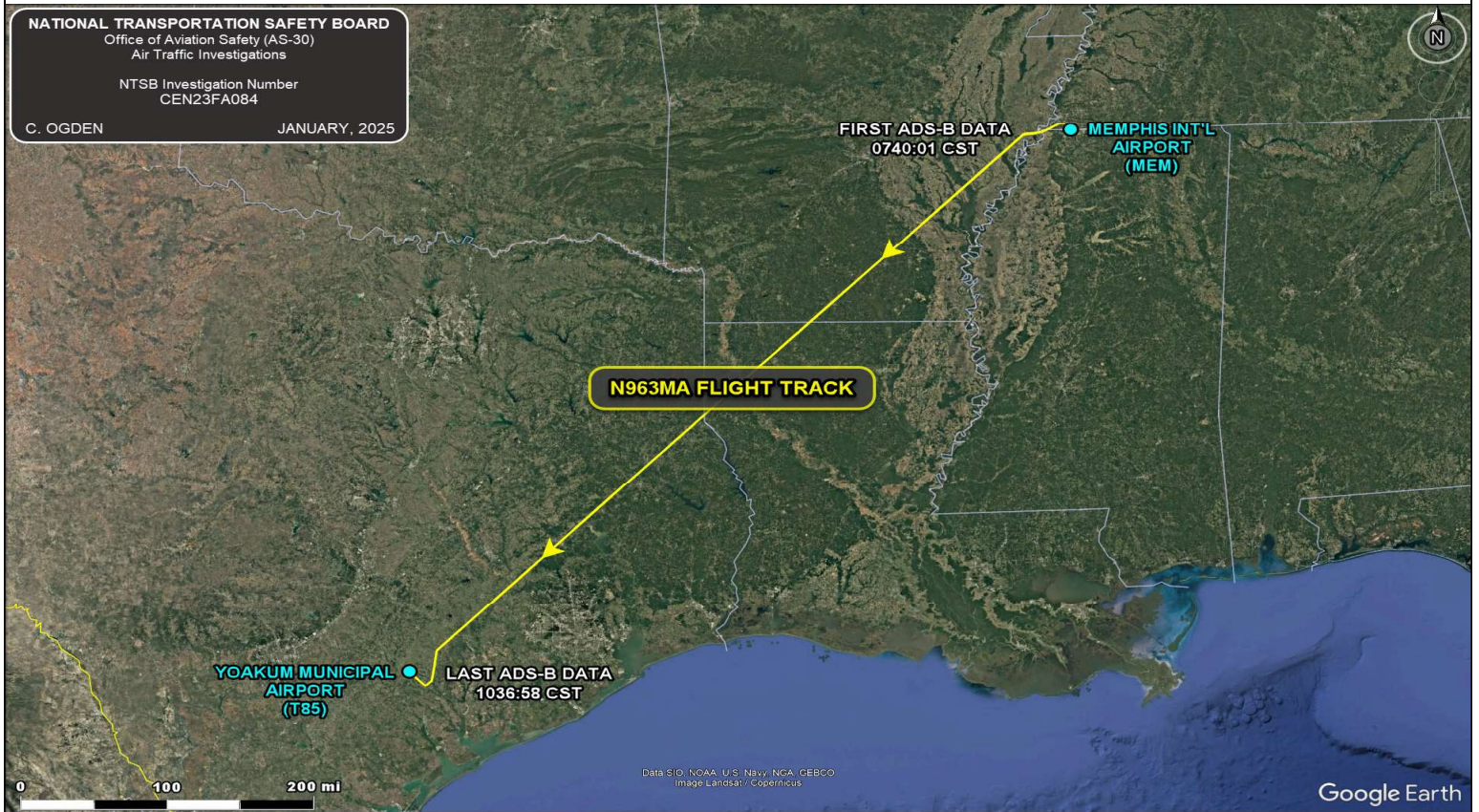
YOAKUM, TEXAS  
Orig-D 29DEC22

29°19'N-097°08'W

YOAKUM MUNI (T85)  
**RNAV (GPS) RWY 31**



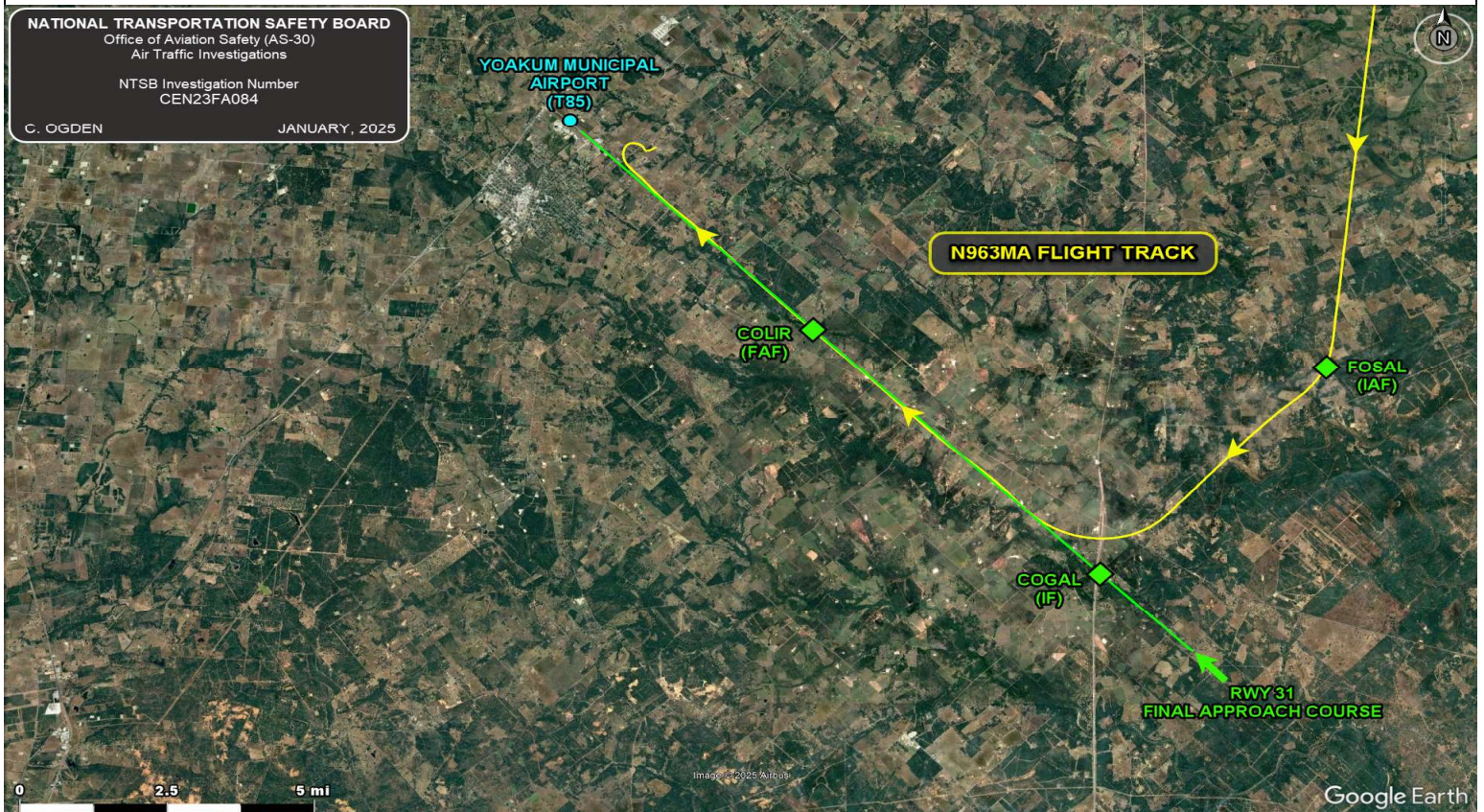
Figure 1



Caption: Overhead view of the entire accident flight track.

ADD

Figure 2



Caption: Overhead view of the final segment of the accident flight track with pertinent information depicted.

ADD



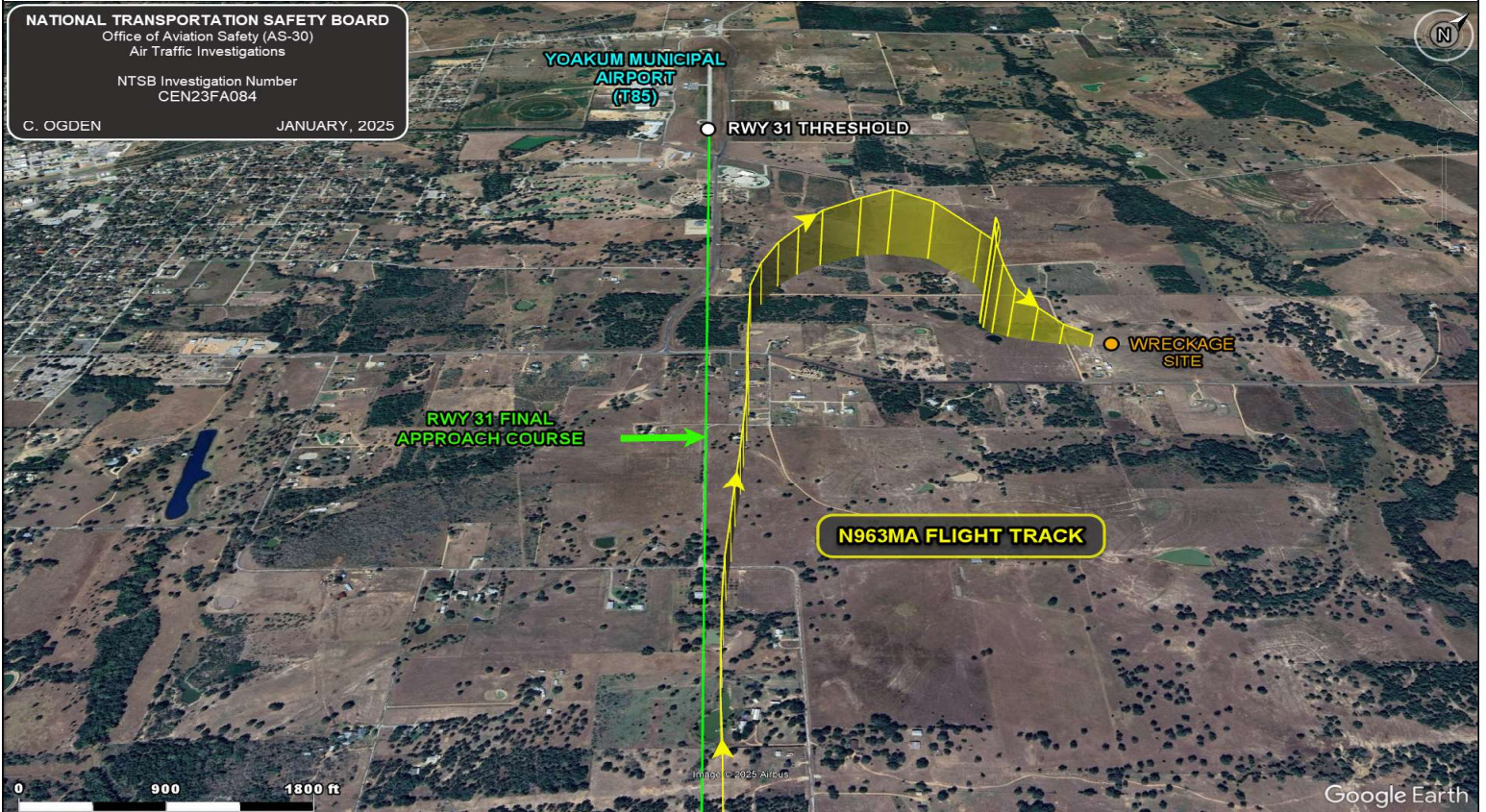
Figure 3



Caption: Profile view of the final segment of the accident flight track.

ADD

Figure 4



Caption: Profile view of the final segment of the accident flight as viewed looking down the final approach course.

ADD