

NATIONAL TRANSPORTATION SAFETY BOARD PILOT/OPERATOR AIRCRAFT ACCIDENT/INCIDENT REPORT

This form to be used for reporting civil and public aircraft accidents and incidents

BASIC INFORMATION

Accident/Incident Location Nearest City/Place: <u>KYIP / BELLEVILLE</u> State: <u>MI</u> ZIP: _____ Country: <u>USA</u> Latitude: <u>42.21</u> Longitude: <u>-83.51</u> (Enter in decimal degrees or degrees:minutes:seconds)		Accident/Incident Date/Time Date: <u>08/13/2023</u> Local Time: <u>1600</u> mm/dd/yyyy Time Zone: <u>EDT (GMT-4)</u>	
Collision with Other Aircraft: Midair On-ground <u>None</u>			

AIRCRAFT INFORMATION

Registration Number: <u>N230B</u> Manufacturer: <u>MIKOYAN - GUREVICH</u> Model: <u>MIG-23UB</u> Serial Number: <u>1038107</u> Year of Manufacture: <u>1981</u> Amateur-Built: Yes If Yes: Kit/Plans Make: _____ <u>No</u> Original Design		IFR-Equipped and Certified Commercial Space Flight Unmanned Aircraft Maximum Gross Weight: <u>39,242</u> lbs Weight at Time of Accident/Incident: <u>24,000</u> lbs Number of Seats: <u>2</u> Flight Crew Seats: <u>2</u> Cabin Crew Seats: <u>0</u> Passenger Seats: <u>0</u> Number of Engines: <u>1</u>	
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Category of Aircraft ☒ Airplane ☐ Balloon ☐ Blimp/Dirigible ☐ Glider ☐ Gyroplane ☐ Helicopter ☐ Powered Lift ☐ Rocket ☐ Ultralight ☐ Unknown	Type of Airworthiness Certificate (Check all that apply) <table style="width: 100%;"> <tr> <th>Standard</th> <th>Special</th> </tr> <tr> <td>Normal</td> <td>Restricted</td> </tr> <tr> <td>Aerobatic</td> <td>Limited</td> </tr> <tr> <td>Balloon</td> <td>Provisional</td> </tr> <tr> <td>Commuter</td> <td>Special Flight</td> </tr> <tr> <td>Transport</td> <td><u>Experimental</u></td> </tr> <tr> <td>Utility</td> <td>Special Light-Sport</td> </tr> <tr> <td></td> <td>Experimental Light-Sport</td> </tr> </table> Certificate of Authorization or Waiver (COA) None Unknown	Standard	Special	Normal	Restricted	Aerobatic	Limited	Balloon	Provisional	Commuter	Special Flight	Transport	<u>Experimental</u>	Utility	Special Light-Sport		Experimental Light-Sport	Landing Gear (Check all that apply) ☒ Tricycle ☐ Amphibian ☐ Emergency Float ☐ Float ☐ Hull ☐ Retractable ☐ Tailwheel ☐ High Skid ☐ Skid ☐ Ski ☐ Ski/Wheel Other Launch/Recovery System None Unknown	Engine Type (Select one) <table style="width: 100%;"> <tr> <td>Reciprocating</td> <td>Liquid Rocket</td> </tr> <tr> <td>Turbo Shaft</td> <td>Solid Rocket</td> </tr> <tr> <td>Turbo Prop</td> <td>Hybrid Rocket</td> </tr> <tr> <td><u>Turbo Jet</u></td> <td>None</td> </tr> <tr> <td>Turbo Fan</td> <td>Unknown</td> </tr> <tr> <td>Electric</td> <td></td> </tr> </table> Fuel System Type (Reciprocating) Carburetor Fuel-Injected	Reciprocating	Liquid Rocket	Turbo Shaft	Solid Rocket	Turbo Prop	Hybrid Rocket	<u>Turbo Jet</u>	None	Turbo Fan	Unknown	Electric	
Standard	Special																														
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Engine	Engine Manufacturer	Engine Model/Series	Manufacturer's Serial Number	Date of Mfg. mm/dd/yyyy	Rated Power Horsepower or lbs of Thrust	Total Time (hours)	Time Since: Inspection (hours)	Time Since: Overhaul (hours)
Eng 1	<u>MIG</u>	<u>R27F2M-300</u>	<u>710474725072</u>		<u>15K/23K</u>	<u>890.4</u>	<u>4.9</u>	<u>440.4</u>
Eng 2								
Eng 3								
Eng 4								

Last Inspection Type <u>Go No</u> No Hour AAIP Annual Continuous Airworthiness Conditional Inspection Unknown Date Last Inspection: <u>07/17/2023</u> mm/dd/yyyy Airframe Total Time: <u>1697.4</u> hrs hours measured at (Select one) ☒ Last Inspection ☐ Time of Accident/Incident Type of Maintenance Program (Select one) Annual Conditional (Amateur-built only) Manufacturer's Inspection Program Other Approved Inspection Program (AAIP) Continuous Airworthiness Other, specify: _____ Description of Fire Extinguishing System None Specify: <u>ENG-FIRE EXT BOTTLE</u>	<table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> Propeller 1 Fixed Pitch Controllable Pitch Ground Adjustable Manufacturer: _____ Model: _____ ELT Installed: <u>Yes</u> <u>No</u> If Yes: ELT Manufacturer: <u>UNKNOWN</u> Model or Part No.: _____ TSO No.: C91 (121.5 MHz) C91a (121.5 MHz) C126 (406 MHz) Was ELT still mounted in aircraft? Yes <u>?</u> No Was ELT still connected to antenna? Yes <u>?</u> No Did ELT Activate? Yes <u>?</u> No If activated: Did ELT Aid in Locating Aircraft: Yes <u>No</u> If not activated: Indicate Reason: Impact Damage Fire Damage Battery Expired/Damaged <u>Unknown</u> </td> <td style="width: 50%; vertical-align: top;"> Propeller 2 Fixed Pitch Controllable Pitch Ground Adjustable Manufacturer: _____ Model: _____ Additional Equipment (Check all that apply) ADS-B Airframe Parachute ☒ Angle of Attack Indicator <u>FRONT ONLY</u> ☒ Autopilot <u>REAR INOP</u> ☒ Data Recorder ☒ Electronic Flight Bag or Handheld Device Electronic Multifunction Display Electronic Primary Flight Display ☒ Handheld GPS Heads Up Display Onboard Weather Satellite Tracking Device ☒ Stall Warning System Video Recording Device Other, Specify: _____ </td> </tr> </table>		Propeller 1 Fixed Pitch Controllable Pitch Ground Adjustable Manufacturer: _____ Model: _____ ELT Installed: <u>Yes</u> <u>No</u> If Yes: ELT Manufacturer: <u>UNKNOWN</u> Model or Part No.: _____ TSO No.: C91 (121.5 MHz) C91a (121.5 MHz) C126 (406 MHz) Was ELT still mounted in aircraft? Yes <u>?</u> No Was ELT still connected to antenna? Yes <u>?</u> No Did ELT Activate? Yes <u>?</u> No If activated: Did ELT Aid in Locating Aircraft: Yes <u>No</u> If not activated: Indicate Reason: Impact Damage Fire Damage Battery Expired/Damaged <u>Unknown</u>	Propeller 2 Fixed Pitch Controllable Pitch Ground Adjustable Manufacturer: _____ Model: _____ Additional Equipment (Check all that apply) ADS-B Airframe Parachute ☒ Angle of Attack Indicator <u>FRONT ONLY</u> ☒ Autopilot <u>REAR INOP</u> ☒ Data Recorder ☒ Electronic Flight Bag or Handheld Device Electronic Multifunction Display Electronic Primary Flight Display ☒ Handheld GPS Heads Up Display Onboard Weather Satellite Tracking Device ☒ Stall Warning System Video Recording Device Other, Specify: _____
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OWNER/OPERATOR INFORMATION**Registered Aircraft Owner**Name: DANIEL W. FILERFractional Ownership Aircraft: Yes ☐ No ☒City: ALTOState: TX ZIP: 75925Country: USA**Operator of Aircraft**

Same As Registered Owner

Name: DANIEL W. FILERDoing Business As: SELF

Air Carrier/Operator Designator (4 Character Code): _____

City: ALTOState: TX ZIP: 75925Country: USA**Operating Certificates Held**

(Check all that apply)

None
Flag Carrier Operating Certificate (FAR 121)
Supplemental
Air Cargo
Foreign Air Carriers (FAR 129)
Rotorcraft External Load (FAR 125)
Commuter Air Carrier (FAR 135)
On-Demand Air Taxi (FAR 135)
Commercial Air Tour (FAR 136)
Agricultural Aircraft (FAR 137)
Pilot School (FAR 141)
Certificate of Authorization or Waiver (COA)
Commercial Space Transportation
Experimental Permit
Commercial Space Transportation License
Other Operator of Large Aircraft

Regulation Flight Conducted Under

☒ FAR 91 FAR 129 FAR 415
FAR 103 FAR 133 FAR 431
FAR 121 FAR 135 FAR 435
FAR 125 FAR 137 FAR 437

FAR 91 Special Flight
Non-US, Commercial
Non-US, Non-commercial

Public Aircraft (Select one)

Armed Forces
Federal
State
Local

Unknown

Revenue Operation for FAR 121, 125, 129, 135

(Select one for each group)

Scheduled or Commuter Domestic
Non-Scheduled or Air Taxi International

Passenger
Cargo
Mail Contract Only

Purpose of Flight for FAR 91, 103, 133, 137

(Select one)

Aerial Application Firefighting Unknown
Aerial Observation Flight Test
Air Drop Glider Tow
☒ Air Race/Show Instructional
Banner Tow Other Work Use
Business Personal
Executive/Corporate Positioning
External Load Skydiving
Ferry

Revenue Sightseeing FlightYes ☐ No ☒**Air Medical Flight**Yes ☐ No ☒**AIRPORT INFORMATION (Fill in if accident/incident occurred on approach, landing, takeoff, departure, or within 3 miles of an airport)**Airport Name: WILLOW RUNAirport Identifier: KYIPProximity to Airport: ☒ Off Airport/Airstrip ☐ On Airport/Airstrip N/A

Distance From Airport Center: _____ sm

Direction From Airport: _____ degrees true

Airport Elevation: 715 ft. msl**Runway Information**

Runway ID: _____ (L/R/C) Length: _____ ft Width: _____ ft

Runway/Landing Surface (Check all that apply)

Asphalt Grass/Turf Macadam Water
Concrete Gravel Metal/Wood
Dirt Ice Snow Unknown

Condition of Runway/Landing Surface (Check all that apply)

Dry Snow-Compacted Water-Calm
Holes Snow-Crusted Water-Choppy
Ice Covered Snow-Dry Water-Glassy
Rough Snow-Wet Wet
Rubber Deposits Soft
Slush-Covered Vegetation Unknown

Approach/Departure Segment (Select one)

Taxi VFR Departure On Instrument Approach ☒ Downwind Low Approach
Takeoff IFR Departure Procedure/Clearance Landing Base Go Around
Initial Climb Final Aborted Landing (after touchdown)
Crosswind Unknown

IFR Approach (Check all that apply)

None
ADF/NDB PAR MLS Practice
SDF Sidestep LDA GPS
VOR/TVOR ILS ASR
VOR/DME Localizer Only Visual
TACAN LOC-back course Contact
RNAV Circling Unknown

VFR Approach (Check all that apply)

None
Traffic Pattern Stop and Go
Straight-In Touch and Go
Valley/Terrain Following Simulated Forced Landing
☒ Go Around ☒ Forced Landing
Full Stop Precautionary Landing
Unknown

"FLIGHT CREWMEMBER 1" INFORMATION

"Flight Crewmember 1" Responsibilities at the Time of Accident/Incident

☒ Pilot ☐ Co-Pilot ☐ Student Pilot ☐ Flight Instructor ☐ Check Pilot ☐ Flight Engineer ☐ Other Flight Crew

"Flight Crewmember 1" was pilot flying ☒ Yes ☐ No

"Flight Crewmember 1" Identification

First Name: DANIEL W. FILER City of Residence: ALTO
 Middle Initial: W State: TX ZIP: 75925
 Last Name: FILER Country: USA
 Age at time of Accident/Incident: 62 Date of Birth: [REDACTED] mm/dd/yyyy
 Certificate Number: [REDACTED]

Degree of Injury None Fatal Minor Unknown ☒ Serious	Seat Occupied Left Front Right Rear Center Single Unknown	Restraint Type Available Used None None Lap only Lap only 3-point 3-point ☒ 4-point 4-point 5-point 5-point Unknown Unknown	Inflatable Restraints ☒ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown
Pilot Certificate(s) (Check all that apply) None Flight Instructor ☒ Commercial ☒ US Military ☒ Private Recreational ☒ Airline Transport Foreign Student Sport ☒ Flight Engineer			
Principal Occupation ☒ Pilot Other Unknown	Medical Certificate None Class 3 ☒ Class 1 Driver's License (Sport Pilot only) Class 2 Unknown	Medical Certificate Validity ☒ Without limitations/waivers Unknown With limitations/waivers N/A Special Issuance	Date of Last Medical <u>02/23/2023</u> mm/dd/yyyy

Medical Certificate Limitations NONE

Medical Certificate Special Issuance

Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks: 03/21/2023 mm/dd/yyyy
Flight Review Aircraft
 Make: B777 BOEING
 Model: B777 BOEING

Airplane Rating(s) (Check all that apply) None ☒ Single-Engine Land ☐ Single-Engine Sea ☒ Multiengine Land ☐ Multiengine Sea	Other Aircraft Rating(s) (Check all that apply) None Airship Balloon Glider Gyroplane Helicopter Powered Lift	Instrument Rating(s) (Check all that apply) None ☒ Airplane Helicopter Powered Lift	Instructor Rating(s) (Check all that apply) ☒ None Airplane Single-Engine Airplane Multi-Engine Gyroplane Powered Lift Instrument Airplane Instrument Helicopter Helicopter Glider Sport
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Type Ratings A-320 AUTHORIZED EXPERIMENTAL
 B-757 AL L-39
 B-767 MIG-23
 B-777

Student Endorsements (Include dates)

Flight Time (Enter appropriate number of hours in each box)	All Aircraft	This Make & Model	Airplane Single Engine	Airplane Multiengine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time	21,296	42	724	20,572						
Pilot in Command (PIC)	14,000	31	699	13,301						
Time as Instructor										
This Make/Model										
Last 90 Days	79	7.4	7.4	71.6						
Last 30 Days	4.6	4.6	4.6							
Last 24 Hours	1.7	1.7	1.7	0						

"FLIGHT CREWMEMBER 2" INFORMATION																																																																																																				
"Flight Crewmember 2" Responsibilities at the Time of Accident/Incident Pilot Co-Pilot Student Pilot Flight Instructor Check Pilot Flight Engineer Other Flight Crew SAFETY OBSERVER																																																																																																				
"Flight Crewmember 2" was pilot flying Yes No																																																																																																				
"Flight Crewmember 2" Identification First Name: <u>MARK RUFF</u> Middle Initial: _____ Last Name: <u>RUFF</u> City of Residence: <u>DAZIAS</u> State: <u>TX</u> ZIP: _____ Country: _____ Age at time of Accident/Incident: _____ Date of Birth: _____ <i>mm/dd/yyyy</i>																																																																																																				
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<table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2" style="text-align: left; padding: 5px;">Flight Time <i>(Enter appropriate number of hours in each box)</i></th> <th rowspan="2" style="text-align: center; padding: 5px;">All Aircraft</th> <th rowspan="2" style="text-align: center; padding: 5px;">116-63 This Make & Model</th> <th rowspan="2" style="text-align: center; padding: 5px;">Airplane Single Engine</th> <th rowspan="2" style="text-align: center; padding: 5px;">Airplane Multiengine</th> <th rowspan="2" style="text-align: center; padding: 5px;">Night</th> <th colspan="2" style="text-align: center; padding: 5px;">Instrument</th> <th rowspan="2" style="text-align: center; padding: 5px;">Rotorcraft</th> <th rowspan="2" style="text-align: center; padding: 5px;">Glider</th> <th rowspan="2" style="text-align: center; padding: 5px;">Lighter Than Air</th> </tr> <tr> <th style="text-align: center; padding: 5px;">Actual</th> <th style="text-align: center; padding: 5px;">Simulated</th> </tr> </thead> <tbody> <tr> <td style="text-align: left; padding: 5px;">Total Time</td> <td></td> <td>10.5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: left; padding: 5px;">Pilot in Command (PIC)</td> <td></td> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: left; padding: 5px;">Time as Instructor</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: left; padding: 5px;">This Make/Model</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: left; padding: 5px;">Last 90 Days</td> <td></td> <td>7.4</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: left; padding: 5px;">Last 30 Days</td> <td></td> <td>4.6</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: left; padding: 5px;">Last 24 Hours</td> <td></td> <td>1.7</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>											Flight Time <i>(Enter appropriate number of hours in each box)</i>	All Aircraft	116-63 This Make & Model	Airplane Single Engine	Airplane Multiengine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air	Actual	Simulated	Total Time		10.5									Pilot in Command (PIC)		0									Time as Instructor											This Make/Model											Last 90 Days		7.4									Last 30 Days		4.6									Last 24 Hours		1.7								
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ADDITIONAL FLIGHT CREWMEMBERS (Exclusive of cabin crew, complete the following information)

Crew Name and Address		Seat Occupied	Injury
First Name: _____	City of Residence: _____	Left Center Right	Front Rear Single Unknown
Middle Initial: _____	State: _____ ZIP: _____		None Minor Serious Fatal Unknown
Last Name: _____	Country: _____		
Pilot Certificate(s) (Check all that apply)		Restraint Type:	Inflatable Restraints
None	Flight Instructor	Available	Used
Private	Recreational	None	None
Student	Sport	Lap Only	Lap Only
		3-point	3-point
		4-point	4-point
		5-point	5-point
		Unknown	Unknown
Type Rating/Endorsement for Accident/Incident Aircraft? Yes No		Total Flight Time at the Time of this Accident/Incident: _____ hrs	

Crew Name and Address		Seat Occupied	Injury
First Name: _____	City of Residence: _____	Left Center Right	Front Rear Single Unknown
Middle Initial: _____	State: _____ ZIP: _____		None Minor Serious Fatal Unknown
Last Name: _____	Country: _____		
Pilot Certificate(s) (Check all that apply)		Restraint Type:	Inflatable Restraints
None	Flight Instructor	Available	Used
Private	Recreational	None	None
Student	Sport	Lap Only	Lap Only
		3-point	3-point
		4-point	4-point
		5-point	5-point
		Unknown	Unknown
Type Rating/Endorsement for Accident/Incident Aircraft? Yes No		Total Flight Time at the Time of this Accident/Incident: _____ hrs	

PASSENGER(S) / OTHER PERSONNEL (Include cabin crew; continue on separate sheet if necessary)

Name and Address	Seat	Injury	Restraint Type	Inflatable Restraints	Age
First Name: _____ City: _____	Left	None	Available	Used	Under 5 years
Middle Initial: _____ State: _____ ZIP: _____	Center	Minor	None	None	
Last Name: _____ Country: _____	Right	Serious	Lap Only	Lap Only	If Under 5,
Crew Passenger Other	Unknown	Fatal	3-point	3-point	Child Restraint
	Row: _____	Unknown	4-point	4-point	Lap-Held
			5-point	5-point	Unknown
			Unknown	Unknown	
First Name: _____ City: _____	Left	None	Available	Used	Under 5 years
Middle Initial: _____ State: _____ ZIP: _____	Center	Minor	None	None	
Last Name: _____ Country: _____	Right	Serious	Lap Only	Lap Only	If Under 5,
Crew Passenger Other	Unknown	Fatal	3-point	3-point	Child Restraint
	Row: _____	Unknown	4-point	4-point	Lap-Held
			5-point	5-point	Unknown
			Unknown	Unknown	
First Name: _____ City: _____	Left	None	Available	Used	Under 5 years
Middle Initial: _____ State: _____ ZIP: _____	Center	Minor	None	None	
Last Name: _____ Country: _____	Right	Serious	Lap Only	Lap Only	If Under 5,
Crew Passenger Other	Unknown	Fatal	3-point	3-point	Child Restraint
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			5-point	5-point	Unknown
			Unknown	Unknown	
First Name: _____ City: _____	Left	None	Available	Used	Under 5 years
Middle Initial: _____ State: _____ ZIP: _____	Center	Minor	None	None	
Last Name: _____ Country: _____	Right	Serious	Lap Only	Lap Only	If Under 5,
Crew Passenger Other	Unknown	Fatal	3-point	3-point	Child Restraint
	Row: _____	Unknown	4-point	4-point	Lap-Held
			5-point	5-point	Unknown
			Unknown	Unknown	

FLIGHT ITINERARY INFORMATION

Last Departure Point Airport ID: <u>KYIP</u> City: <u>DETROIT</u> State: <u>MI</u> Country: <u>USA</u>	Time of Departure Time: <u>1600 L</u> Time Zone: <u>EST</u> <u>GMT-4</u>	Destination Airport ID: <u>KYIP</u> City: <u>DETROIT</u> State: <u>MI</u> Country: <u>USA</u>	Type Flight Plan Filed None ☐ VFR/IFR Company VFR ☐ IFR Military VFR ☐ Unknown VFR ☒ Activated? Yes No ☒ Unknown
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Type of ATC Clearance/Service (Check all that apply) None ☒ Special VFR ☐ Special IFR ☐ VFR Flight Following ☐ Cruise VFR ☐ IFR ☐ VFR On Top ☐ Traffic Advisory ☐ Unknown / NA ☐				
Airspace where the accident/incident occurred (Check all that apply) Class A ☐ Class G ☐ Military Operations Area (MOA) ☐ Special ☒ Class B ☐ <u>Demo Area</u> ☒ Airport Advisory Area ☐ Air Traffic Control Area ☐ Class C ☐ Warning Area ☐ Jet Training Area ☐ Unknown ☐ Class D ☐ Prohibited Area ☐ TRSA ☐ Class E ☐ Restricted Area ☐ FAR 93 ☐				Altitude of In-Flight Occurrence: <u>1000</u> ft msl

WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE

Source of Pilot Weather Information (Check all that apply) National Weather Service ☐ Company ☐ Flight Service Station ☐ Military ☐ TV/Radio ☐ Internet ☐ <u>Automated Report</u> ☒ None ☐ Commercial Weather Service (DUATS) ☐ Unknown ☐ On-Board Weather ☐	Weather Observation Facility Facility ID: _____ Observation Time: _____ Time Zone: _____ Distance from Accident Site: _____ nm Direction from Accident Site: _____ degrees true
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Basic Conditions VMC ☒ IMC ☐ Unknown ☐	Light Condition Dawn ☐ Dusk ☐ Dark Night ☐ Unknown ☐ Day ☒ Night ☐ Bright Night ☐
Sky/Lowest Cloud Condition Clear ☒ Thin Broken ☐ Few ☐ Thin Overcast ☐ Partial Obscuration ☐ Unknown ☐ Scattered ☐	Ceiling None (Clear) ☒ Obscured ☐ Broken ☐ Indefinite ☐ Overcast ☐ Unknown ☐
Lowest Cloud Condition Height <u>Clear</u> ft agl	Ceiling Height <u>None</u> ft agl
Temperature: <u>17</u> (C) or _____ (F) Dew Point: <u>15</u> (C) or _____ (F) Altimeter Setting: <u>29.91</u> in. Hg or _____ MB	

Wind Direction Variable ☐ <u>3 KTS</u> Direction: <u>280</u> degrees true	Wind Speed Calm ☐ Light and Variable ☐ Speed: <u>3</u> kts	Wind Gusts Not Gusting ☒ Speed: _____ kts	Visibility <u>10</u> miles RVR: _____ feet RVV: _____ miles Density Altitude: _____ ft
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Intensity of Precipitation Light ☐ Moderate ☐ Heavy ☐ N/A ☐ Unknown ☐	Type of Precipitation (Check all that apply) None ☒ Drizzle ☐ Freezing Rain ☐ Rain ☐ Ice Pellets ☐ Snow Shower ☐ Snow ☐ Snow Pellets ☐ Ice Pellets Shower ☐ Hail ☐ Snow Grains ☐ Freezing Drizzle ☐ Rain Showers ☐ Ice Crystals ☐	Restriction to Visibility (Check all that apply) None ☒ Fog ☐ Blowing Dust ☐ Ground Fog ☐ Blowing Sand ☐ Haze ☐ Blowing Snow ☐ Ice Fog ☐ Blowing Spray ☐ Smoke ☐ Dust ☐ Unknown ☐
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Icing Forecast Amount ☒ None ☐ Trace ☐ Light ☐ Moderate ☐ Severe ☐ Unknown ☐ Type N/A ☐ Rime ☐ Clear ☐ Mixed ☐ Unknown ☐	Icing Actual Amount ☒ None ☐ Trace ☐ Light ☐ Moderate ☐ Severe ☐ Unknown ☐ Type N/A ☐ Rime ☐ Clear ☐ Mixed ☐ Unknown ☐	Turbulence Type (Check all that apply) None ☒ Clear Air ☐ Terrain-Induced ☐ Convective Turbulence ☐ Severity Light ☐ Moderate ☐ Severe ☐ Extreme ☐
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NOTAMs (D and FDC), AIRMETs, SIGMETs, PIREPs in effect at the time of the accident/incident:

WAIVERED AIRSPACE AIRSHOW IN PROGRESS

DAMAGE TO AIRCRAFT AND OTHER PROPERTY**Aircraft Damage**

None
Minor
Substantial
Destroyed
Unknown

Aircraft Fire

None
In-Flight
On-Ground
Both Ground and In-Flight
Fire at Unknown Time
Unknown

Aircraft Explosion

None
In-Flight
On-Ground
Both Ground and In-Flight
Explosion at Unknown Time
Unknown
**EJECTION SEATS
EXPLOSION**

Description of Damage to Aircraft and Other Property (Use additional sheet if necessary)

AIRCRAFT TOTALLY DAMAGED. DAMAGE TO
PROPERTY PENDING REPORT. NO INJURIES ON
GROUND.

NARRATIVE HISTORY OF FLIGHT (Please type or print in ink)

Describe what occurred in chronological order, including circumstances leading to and nature of accident/incident. Describe terrain and include wreckage distribution sketch if pertinent. Attach extra sheets if needed. State departure time and location, services obtained, and intended destination. Provide as much detail as possible.

STATEMENT TO BE SENT DIRECTLY TO NTSB
INVESTIGATOR BY SEPARATE EMAIL.
see ATTACHED ^T STATEMENT

RECOMMENDATION (How could this accident/incident have been prevented?)

Operator/Owner Safety Recommendation

UNKNOWN AT THIS TIME THE CAUSE OF ENGINE MALFUNCTION.

A SAFETY OBSERVER IN THE AIRCRAFT DOESN'T NECESSARILY MEAN HE'LL ACT IN A MANNER TOWARDS YOUR SAFETY AND YOUR AIRCRAFT. MAYBE ONLY FOR HIS OWN.

THE CAUSE OF THE AIRPLANE CRASH WAS THAT THERE WAS NO ~~PILOT~~ LONGER A PILOT CONTROLLING THE AIRCRAFT. THIS WAS ONLY A DEGRADED ENGINE. A PILOT EJECTED FROM HIS CONTROLS CAN NO LONGER LAND THE

MECHANICAL MALFUNCTION/FAILURE (If more space is needed, continue on separate sheet)Was there Mechanical Malfunction/Failure? ☒ Yes ☐ No
(If yes, list the name of the part, manufacturer, part no., serial no., and describe the failure.)

ENGINE THRUST REDUCTION. CAUSE UNKNOWN

SYMPTOMS WERE OF A SET NOZZLE FLAP CONTROL FAILURE. PILOT ~~EJECTED~~ MAY HAVE CORRECTED THE ISSUE PRIOR TO BEING EJECTED.

Total Time/Cycles On Part

see p. 2 Hours

Cycles

Time Since This Part Inspected/Overhauled

see page

Hours

2

FUEL & SERVICES INFORMATIONFuel on Board at Last Takeoff
(Convert from pounds, as necessary)

~ 790

Gallons

Fuel Type

80/87

100 Low Lead

100/130

115/145

☒ Jet A

Jet A-1

Jet B

JP8

Automotive

Other, specify _____

Other Services, if Any, Prior to Departure

EVACUATION OF AIRCRAFTWas an emergency evacuation of the aircraft performed? ☒ Yes ☐ No

Method of Exit - Describe how the occupants exited and how many occupants evacuated each location

REAR COCKPIT OBSERVER ACTIVATED EJECTION SEATS

IN WHICH EJECTED BOTH OBSERVER + PILOT EJECTION SEATS.

OTHER AIRCRAFT - COLLISION (If air or ground collision occurred, complete this section for other aircraft)

Aircraft Registration Number

Manufacturer: _____

Model: _____

Damage to Other Aircraft

Destroyed
SubstantialMinor
None

Registered Owner of Other Aircraft

Name: _____
City: _____
State: _____ ZIP: _____
Country: _____

Pilot of Other Aircraft

Name: _____
City: _____
State: _____ ZIP: _____
Country: _____

ADDITIONAL INFORMATION (Please type or print in ink)

Use this space if additional space is needed for any answers.

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Date of this Report

08/29/2023
mm/dd/yyyy

Name of Pilot/Operator: 1 DANIEL W. FILER

Signature: [REDACTED]

— or —

Check here to electronically sign this document

If a Person Other than Pilot/Operator is Filing Report

Name: _____

Title: _____

Signature: _____

— or —

Check here to electronically sign this document

FOR NTSB USE ONLY

NTSB Accident/Incident No.

CEN23FA361

Reviewed by NTSB Regional Office

AS-CEN

Name of Investigator

J.Brannen

Date Report Received

6/11/2025

Background info:

Mark Ruff and I had flown 16 MiG-23 flights (10 hrs) together prior to the incident. Of those 10 hours, 6.5 hours were cross country repositioning flights. 13 of those flights happened most recently over a 5 month period prior to the accident. Our crew coordination grew from me basically flying a solo operation to Mark being a valuable crew member handling mostly ATC comms and reading of some normal checklists and on the more recent flights I was confident enough of his abilities and judgement to "announce" and "perform" pre-briefed wing movement changes as well as deploying the aircraft drag chute on landing. We also talked about when and where to light the burner for the best effect for spectators during a flyby. Mark would make those recommended call outs while I do the "pilot shit" and safely fly the plane. As in all cases as the PIC and only MiG-23 rated pilot in the cockpit, I had the right to agree or disagree with any recommendations from the back seat.

All but 2 of Mark's flights were flown occupying the rear observers seat. Both of Marks front seat flights were cross country repositioning flights to airports with at least 10,000 ft runways. The eventual goal was to have Mark work towards earning his type rating in the jet. We decided to use the cross country flights between the 3 events we had planned to attend in 2023 as a great way to introduce Mark to MiG-23 operations. In my opinion Mark has good stick and throttle piloting skills and very knowledgeable of general aviation flight rules and regulations. What I wasn't satisfied with him yet as a member of my inner circle was his lack of preparation for flights on actual flight related aspects and duties. My operation is not a military or airline operation where one can just show up, fly, then leave. There is so much more preparation required when flying this type of aircraft. His preoccupation with getting the right picture, attaching video equipment or ensuring his Margarita Machine makes it on my Maintenance support trailer had become a concern. Eventually he was able to fuel the jet without supervision but even minor help such as checking tire pressure or servicing the Nitrogen system were beyond his capabilities even after so many flights together. His cockpit set up took about as long on the 10th flight as it did on his first. I would always have to give him plenty of head start time to get strapped in and then overseeing his setup before I would man up my own seat.

When switching Mark to the front seat for the first time, May 09, 2023 on a repositioning flight and I was to occupy the rear cockpit position, I quickly noticed that the rear seat right shoulder harness was not attached to the ejection seat. I asked Mark about it and he replied that he remembers it not "feeling" right but never bothered to mention it to me. This was only the second time I had flown in the rear cockpit. The first time was 7 years prior. I also noted during this flight that the AOA gauge in the rear cockpit did not function as it did previously. Mark had failed to mentioned this as well. I fixed the seat issue and made sure I provided more training to Mark prior to our next flight together which took place on July 24. The inop rear cockpit AOA gauge I mentioned to my mechanic at a later date. On the day of the incident, Mark was strapped into the rear cockpit and asked my mechanic to make sure that he had strapped himself in properly. My mechanic was busy performing his own duties so I once again checked over Mark's seat to ensure all was in order prior to me occupying the front pilot in command seat.

Day of the Incident
August 13, 2023

The morning of August 13th, proved to be the highlight of my MiG-23 career. We had been in contact with a Marine F-35 unit 2 months prior to "Thunder over Michigan" and had arranged to fly together doing actual intercepts in a Military Operating Area just north of KYIP. The flight went as planned, (We elected to perform a non-burner takeoff to conserve fuel since we new this flight was going to be over an hour in duration) After completing 2 intercept, we

then led the pair of F-35's back to the overhead during the morning part of the show. After an uneventful landing we immediately started to prepare the jet for the scheduled demo flight for the afternoon portion of the show. We also tried to prepare as much as possible for our planned departure flight to Rockford, IL later that evening. We had to pack up our maintenance trailer and car that had been on the road following the MiG-23 since leaving for Oshkosh 3 weeks earlier.

Mark and I had discussed the upcoming demo flight and agreed that up to this point all of our flybys at Sun N Fun and Oshkosh were of the Reverse Banana Pass type resulting in a bottom view of the jet as we flew by. We wanted to make a Corner to Corner (Photo or Banana Pass, using the established corner markers to give spectators and photographers a topside view. The planned takeoff would be from the same runway we used earlier in the day, Runway 23. This time using full afterburner to a right turn downwind and set up for 2 left hand banana passes in a left hand (south of runway) pattern and a full stop on Runway 23 using the drag chute.

Right after the MiG-17 landed, back taxied and cleared the runway, We were cleared for takeoff on runway 23. As we rolled down the runway with maximum power selected I then selected min burner and then right to max burner, it's not quite a cat shot I remember from my Navy days but it's an unmistakable jolt when the afterburner lights off. Gear and Flaps up on schedule. Afterburner was deselected as we turned downwind. (It takes a couple of seconds of continued acceleration before the engine actually comes out burner). Nothing unusual noted at this time. In order to set up for a left corner to corner Banana Pass for Runway 23 we had to fly past the abeam point of Runway 23 on an approximate heading of 050 then judge when to turn back towards the corner post (actually a big white tent), complete about 220 degree heading change so as to be on about a westerly (270 degree heading) in a 75 degree angle of bank around 800 ft AGL. It was all coming together as planned. At approximately the pre-briefed distance from starting the pass, Mark announced and selected the wing position to 45 degrees. I responded with an affirmative statement. I quickly glanced at the airspeed indicator and I remember thinking we were slower than I thought we should be, although we were well above the min maneuvering speed of 245 KTS, I wanted more airspeed closer to 300 KIAS especially because of the AOB we were planning for and the upcoming added G forces that will be applied to maintain a level turn. (In hindsight I believe this was probably my first inclination that something wasn't quite right. I believe the power had already slowly rolled back or remained at a position which was above idle but not more than 80-85% rpm. But I didn't know that yet.) So I moved the throttle forward and lowered the nose slightly to get a more rapid airspeed increase. While I did this Mark recommended it was time to light the burner for the show pass based on our position for the crowd. I agreed and selected the throttle to the full maximum position on the throttle assembly by pulling the afterburner paddle switch to engage the burner, but there was no power increase to full maximum nor burner as expected. I said to Mark, "The burner didn't light, I'm trying again", I pulled the throttle back to a mid range position and attempted to increase power output again in the same manner as I did before yet again, no change in response.

I don't remember if I had leveled the wings completely or if I had only decreased the AOB while I was diagnosing the engine condition. After confirming with each other we had an emergency, I then looked over my left shoulder to see where we were in relation to the airfield. There was no doubt in my mind that we needed to continue or reestablish our left turn immediately back towards the airfield. Mark said, "Wings, coming to 16". I verbally responded with an affirmative response to the movement. I had already started a slight climb while in the turn when Mark recommend that we climb to a higher altitude. The optimum way to trade airspeed for altitude is to level the wings and pull up. But that procedure would put us further

from the airport. I'm not sure how much higher I climbed, I didn't want to bleed off all my airspeed. At this point, any excess energy would be more wisely used getting back closer to the airfield quicker by decreasing the turn radius, either by increasing AOB or by remaining in the AOB I had, and increasing the slight g available. It didn't take long to achieve best clean glide speed of 250 KTS. The aircraft certainly wasn't producing enough thrust to maintain 250 or make the glide at that airspeed to where I was looking, so I continued to slow and started a shallow descent now referencing AOA instead of airspeed, from the only functioning AOA gauge which was in the front cockpit. *1 For this emergency situation the AOA gauge was in an ideal placement. I only had to come inside the cockpit to the first gauge on the left just below the glare shield to reference the AOA. You cannot stall the airplane if you keep the AOA in the proper range, regardless of airspeed. As long as I continued to fly and reference this gauge, any airspeed calls from the observer at this point would be virtually worthless.

Now I had to establish the aircraft on the desired profile. It became a 3 variable math problem, when you know the answer but have to solve for the variables which are constantly changing. The answer, is to put the jet in a designated area (which I was maneuvering to) away from the public, at an airspeed just above stalling airspeed, (which I was not yet at), and at a specific altitude (ground level) which I was not at as well. This equation is what I've been trained to solve so many times before in my 40 plus years of flying and over 20,000 flight hrs. It's the same equation I had to solve so many times as a combat attack pilot in the Navy even under actual high pressure combat missions. As an attack pilot you had to establish the aircraft at an exact dive angle, airspeed and altitude all coming together at the same time at a certain 3 dimensional spot in order for a successful weapons release to achieve hitting your target. It's also the same problem we perform with any normal landing and even more precisely when landing on an aircraft carrier where your using only 3 inputs for a successful outcome. Meatball (Glidescope), Line-up and Angle of Attack(AOA). I have performed hundreds of actual carrier landings and thousands of practice carrier landings using this method. This situation required me to get the jet on a designated heading to line up with a field, just above or at stalling airspeed at ground level. This in my opinion was not an impossible situation. It was still a flying airplane. It's what we do as pilots. We constantly train for this mission wether it's a space shuttle, glider or MiG-23.

The aircraft engine was running above idle and producing some thrust although not enough to maintain a constant altitude and airspeed. I maintained complete control of the aircraft at all times, continuing the turn changing heading, decreasing altitude and airspeed (far from my planned touch down speed) but all the time believing we could make it to a field just past a big highway to the north but short of any actual runway. I continued to reference the AOA gauge and kept my intended point of landing in site. At this point public safety is the number one concern, all other concerns are secondary.

I heard Mark say we needed flaps. I responded with a delaying comment. I'm not sure of the exact wording but it was either "Standby", " Hold On" or "Not Yet". His statement forced me to take my eyes off my intended point of landing and come back inside the cockpit to look at the airspeed gauge to analyze his perceived need of flaps. At this point I saw approximately 210 kts which is indeed below the published minimum maneuvering speed (215 kts) for zero flaps. 215 kts is indeed the book number which I had prominently displayed on a decal in both cockpits just 3 weeks prior to the incident. I also know that a more accurate representation of the airspeed I needed was being provided by the AOA gauge, which I had been referencing. Clean maneuvering airspeed changes based on your actual aircraft weight which can vary between flights. It also varies during flight as you burn fuel and become lighter. So I elected to delay the selection of "takeoff flaps", (half flap position), to achieve a better glide ratio in a clean configuration verses a partial dirty configuration as long as I continued to reference AOA. I believe I finally selected takeoff flaps at about 190kts which is the slowest airspeed I remember seeing on the airspeed indicator. This was the only flap setting made or discussed.

In the MiG-23 manual there is a published flameout profile for a completely dead engine. The configuration on final would be gear down, flaps up and 210 KTS. to a landing on a runway. I didn't have the luxury of having large amounts of altitude and airspeed prior to the event happening to put the aircraft into this condition and still make my intended point of landing. I was confident that I could land at the site I was looking at in my present gear up, half flap, partial thrust condition. (Any more flaps would severely add more drag and decrease of glide distance making it more difficult if not impossible to make the projected landing site.

*2 My present energy state would give me a 50-60 kts margin to work with as I get closer to the intended point of landing to either extend my glide even farther if required or more likely be used to slow my rate of descent prior to reaching ground level. At no point during this flight did the aircraft exceed flying AOA, buffet, shake or approach a stall.

From my many years of training in the Navy and at United Airlines (who are leaders in the industry when it comes to CRM) it has become second nature at how to handle emergencies. First is to confirm the emergency and silence the warning. Mark and I performed that as a crew. (There were no audible warnings associated with this condition). The next steps in order of priority are to Aviate, Navigate, and Communicate. As Pilot in Command and the only qualified MiG-23 pilot in the cockpit, I was certainly performing the Aviating and Navigating duties. The last priority of the emergency situation, communication, could have been better. Since Mark was not aviating (because that's my responsibility and duty), he was also severely limited in helping with any navigational duties. Outside visibility and sitting position in the rear cockpit of the MiG-23 is one of the worst in aviation history. He did have a small GPS in the rear cockpit which I'm sure was virtually useless in this situation. He also did not have the rear periscope available because the gear remained up. The only part of the emergency situation that Mark could perform was communication and to provide the flying pilot with useful information. He did declare an emergency situation with the air boss as required. After that, his communication with me inside the cockpit was more of a hindrance rather than providing any useful information. His hands were free to reference his emergency pocket checklist but he chose not to do so. My attention was looking outside to the left at my intended point of landing in a left hand turn and looking inside troubleshooting shooting on the left sidewall panel. Since all engine performance gauges and annunciator indications are located below glare shield level and on the right side of the cockpit it might have been helpful if my back seater would have provided me with engine information or to communicate to me if any non normal annunciator lights were illuminated. But again he chose not to and was silent.

At this point in time, believing the navigation problem was under control and far from being task saturated, I attempted to better my thrust situation for an even more desirable outcome. My initial thought was that possibly the jet exhaust nozzles may have malfunctioned and were not in the proper position resulting in a severe decrease in thrust. I located the left side panel just above the throttle where there is a bank of guarded switches for various malfunctions. I located and moved down the red switch guard from the Emergency Nozzle Control and moved the silver toggle switch to the up emergency position. *3 I did not feel any immediate difference in performance, (it actually takes 3-5 secs for this system to take effect). I then located the white guarded switch next to the Emergency Nozzle Control switch. This switch is labeled Emergency Engine Control. My plan now was to activate that switch to by-pass the automatic fuel control to establish a manual fuel control feed method.

From top to bottom

Note in Pic below position of

- EMERG NOZZLE CTL (Red guard)
- EMERG ENG CTL (White Guard)
- Throttle (yellow)
- 3 Flap selector push buttons (White)
- Wing position selector knob (White)



If there were a voice recorder in the cockpit at the time of the incident until the point of ejection the recording would be as the following;

PIC	"The burner didn't light, I'm trying again"
Observer	"Wings coming to 16"
PIC	An affirmative response such as, "good call" or "Roger"
Observer	"We need to climb" or similar in meaning
Observer transmission to Air Boss on VHF	"MiG has an emergency" or similar in meaning
Observer	"We need flaps"
PIC	"Standby ", " Hold On" or "Not Yet"
Observer	"We need to get Out of the jet"
PIC	"NO"

The only words spoken from my safety pilot after his recommendation of flaps were, "We need to get out of the Jet"

I immediately responded with "NO!" I remember being surprised at his statement that we needed to get out. I hadn't even had that thought up until this point. Nor did I consider it again.

My right hand was on the control stick . My left hand was in the vicinity of the throttle and left shoulder panel console area. My head was tilted forward and to the left, looking at the next switch to be moved. I was then without any notice violently ejected from my PIC flying position. Public safety was still my number one priority but as soon as Mark activated his ejection handle without notice he put his own safety ahead of the public and me. I don't remember if I had the opportunity to open the guarded switch and move the toggle switch to emergency engine control or just move the guard of the switch or if I was only able to visually acquire the switch and put my hand on it before being violently ejected from flying the jet. I know my arm was in the position of moving the switch because I suffered a large hematoma on my left arm from where the arm guards of the ejection seat come down rapidly during the ejection process to prevent flail injuries once hitting the airstream.*4. I do remember how violent and explosive the event was. I remember my right hand being yanked from the control stick and me still grasping for it as I was engulfed in a ball of fire and rocketed from the cockpit, thinking, if only I could grab the control stick I could still somehow do something. My initial thought was that the airplane had exploded around me, not that I had been ejected. Why would I have the thought I was ejected?...The last clear concise single word spoken in the cockpit was when I responded "No" to his suggestion that we get out. There was no command to eject, as I would have certainly at least leveled the wings and raised the nose with the available airspeed, and

maybe have enough time to prepare my body physically prior to have been exploded out of the cockpit. These procedures are not something a highly trained strike pilot has to think of. They would be instinctual and automatic if commanded by another or initiated by a pilot flying by himself. I would have put my body in a position to better survive the ejection, not with my head down looking forward to the left, flipping switches. It wasn't until feeling the tug of the parachute deployment that I realized that the seat did fire either accidentally after an explosion, or that Mark had purposely ejected us.

After the parachute ride down and water landings we were both picked up by separate boats. One of the boat operators asked me what had happened. All I could say was something was wrong with the engine. I asked them what they knew about the plane crash and if anyone was hurt. They said they hadn't heard anything which confused me. To me it felt like at least 30 minutes had past since the ejection and surely they would have heard by now. But actually only 3-4 minutes had passed! Mark and I were transported to a nearby dock. Mark and I were reunited under a gazebo near the lake waiting for an Ambulance. I was not in the mood for much discussion with him. I was still worried about where the jet hit and if anyone was hurt as a result. My phone had a cracked screen and water damage, I did manage to make a call to my wife and left her an emotional voicemail. (Apparently she never got it). I believe my mechanic was able to speak with me on my phone as well, while we waited for the ambulance to arrive. As the adrenaline was now wearing off and pain setting in, Mark and I hobbled our way into the ambulance. We both sat on the bench seat next to each other, both of us being proud to lie on the stretcher. The ambulance pulled away out of the parking lot en route to the hospital. Fortunately for Mark his phone suffered no damage and he was able to make and receive was many calls during the ambulance ride, he even managed to call my wife to tell her that I was ok but it was difficult for me to speak with the injuries I had to my mouth. Mark then turned towards me and said, "Well Dan, we have one hell of a story to tell, we just gotta figure out how to tell it." It was at this point my feelings of betrayal and disgust towards Mark grew even more. It appeared to me he was already trying to put a positive spin on this tragic event in which he took total control of, once he pulled his ejection handle. It was a long, uncomfortable, quiet ambulance ride to the hospital. All the time I just kept thinking to myself, "I can't believe he just ejected us from the jet while I was still flying it, and we still didn't know if there were any injuries or fatalities as a result", and now he was concerned about how he was going to tell his story.

Once we arrived at the hospital we were put in separate hospital rooms and didn't see or communicate with each other for the rest of the night. My phone was intermittent at best and spent most of the night in a bag of rice trying to dry out. I was very much isolated from the outside world with little communication from family and friends. I do remember agreeing to and being interviewed by the FAA while in my hospital room that evening. The following morning my mechanic and I walked into Mark's hospital room where he was in bed eating his breakfast. It was then and there we told each other our recollections of the event while my mechanic listened intently. This was the first time he told us that he purposely pulled the ejection handle. He said he remembered being surprised that there was nothing at the end of the handle after pulling it from the seat. He also seemed very surprised to learn that I was still troubleshooting the problem, flying the jet and was not in a position to eject and more importantly, that he had ejected both of us when he pulled his handle.

The next day we were both released from the hospital. Mark made a phone call to my mechanic and asked him again about how the ejection seats work. Apparently he was still not convinced that either handle ejects both occupants. He thought he was only ejecting himself. I also learned that Mark had a conversation with FAA Warbird Examiner Zach McNeil that evening in the hospital (or the next morning). Mark had told Zach that he indeed initiated the ejection. When queried by Zack if he gave the classic "Eject,Eject,Eject" call. Mark responded, "No"

In the days following the accident, Mark and I had limited contact with each other. We mostly texted back and forth comparing back injuries. We had agreed not to make any public statements or comment on any social media platforms. We were grateful that we were alive and no injuries had occurred at the crash site. When the initial preliminary NTSB report came out things began to change drastically for Mark and our relationship.

Mark wanted to retrieve some personal items such as flight suits, boots etc. We arranged to meet at my hangar in Longview, Texas on September 1st. I also brought my 16 year old daughter with me for this meeting. She would be my excuse to exit our meeting if things didn't feel right between Mark and myself. When Mark arrived at the hangar he seemed to be very depressed about public opinion of him since the release of the preliminary NTSB report. I suggested we drink a beer together and talk about it. So we sat down at my hangar office, drank a beer and discussed the accident again. He repeatedly said he wanted to make a public statement for his "Mental Health". He seemed to be asking my permission or blessing. Each time he asked, I said I disagreed with his desire. I said, "It's not the right time, while the investigation is going on and it just keeps the wound open." I recommended he let time pass and continue to make no comments so people would stop talking about it. There are a lot more news events out there in the world than what happened to us 2 weeks ago. He asked me if I wanted to talk to his Air Force buddy Scott Perdue. That seemed like a strange request at the time, seeing that I only had met his friend Scott once before, several years ago and wasn't sure why I would want to speak to him. He was a former military pilot not a health care professional. I have my own military pilot friends to speak to if I wanted. I said that my mental health was fine and preferred not to talk to anyone. It was at this time I noticed he had placed his phone on my desk face down between us. I just got a sense he was up to something.

The time had come to end this meeting, so I told Mark my daughter and I had to leave to go to a school function. Mark left and I closed up the hangar. Within a few hrs after our meeting, Mark put out a public youtube video that he and his friend Scott Perdue had already created/produced during the days after the incident.

I haven't heard from Mark since.

***1 Dated picture verified**

***2 Takeoff 1/2 Flaps were verified at crash site and Video/ Pictures in flight**

***3 Front Cockpit Guard and Switch position to be verified by NTSB**

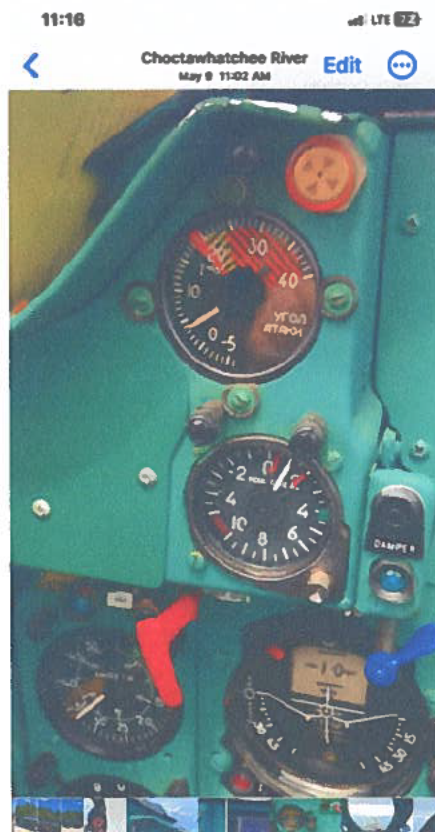
***4 Front Cockpit Guard and Switch position to be determined by NTSB**

Operation of the Angle of Attack limitations system (COYA)

In order not to exceed the maximum permissible angle of attack, the COYA system pushes the control stick with additional force of 16 to 18 kgf to decrease the angle of attack precluding aircraft stalling. To monitor the AOA the YYA-1A angle of attack indicators are installed. Also installed are CYA-1A limit angle of attack warning lights located in both cockpits above the glare shields at eye level.

Never during the incident flight were there any CYA-1A warning lights illuminated or was the only COYA system activated.

Front cockpit with operational AOA



Rear cockpit AOA gauge inop. (Picture taken the morning of the incident)



Below is a pic of My first meeting and briefing with Mark on March of 2021. You can see who is in charge and Marks eyes focused on me like lasers. I can't remember my exact words I used 2 years ago when giving him the ejection seat brief but we were both very satisfied he knew how the seat functions and the differences from other ejection seats he had been trained on.



Human Factors and more:

On 2 occasions, once at Sun N Fun and once again at Oshkosh, Mark showed up less than 30 min before our scheduled takeoff time for a demo flight. At SNF I was already briefing another pilot to take Mark's place when he finally showed up. Apparently Mark felt the need to leave the Airshow grounds during the event to take a shower off site, and had difficulty getting back into the airshow due to airshow car traffic. The last time he again showed up late was at Oshkosh. I was actually preparing to fly solo when he finally showed up with just minutes to spare. He went to shake my hand, I just turned away in disgust and told him to strap in. He looked at me and said, "Someday we'll have to talk about these little things I do that upset you". In my opinion, showing up late for a Mig-23 demo flight is not a little thing.

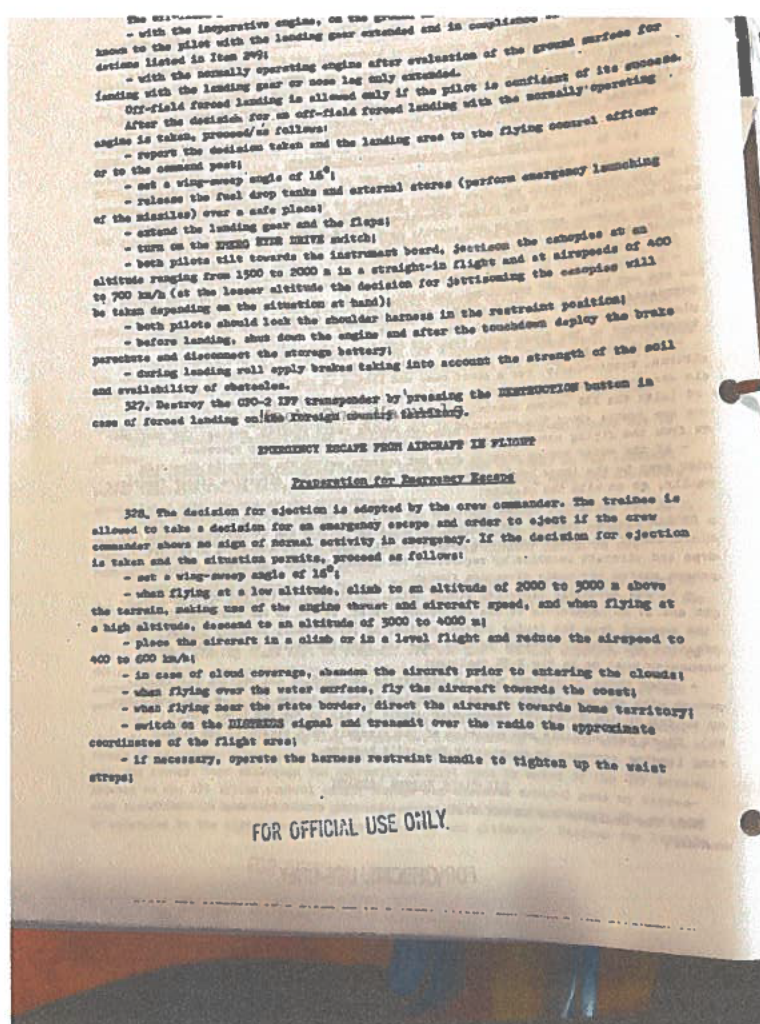
As pilots we are trained to compartmentalize, I put this aside to concentrate on the flight. My Mechanic and I would discuss Mark's future involvement in detail in the weeks that followed.

Mark and I spoke a fair amount about emergencies. We spoke a lot about the ejections seats. Especially if we would ever consider flying the Mig-23 with cold seats or not. Marks position was hot seats or not going.

I hope to think that I am a team player and take inputs from the people I work with. But when there is not a consensus, I as the owner and only qualified Mig-23 pilot on my team, I would have to make the final decision. Many times if I didn't agree with Marks position he would just huff and say "your jet, your show, you do what you want".

2 years ago, I had provided Mark with a pilots operating guide on the Mig-23 that covers normal and emergency operating procedures which includes detailed descriptions and procedures of the ejection seat. I also have a complete KM-1 seat in my hangar we use for training. Mark I are both professional airline pilots. I am a 777 Captain at United and Mark a 777 Co-pilot at American. I was confident in our military training and airline training, we knew how to handle emergencies without going over this in depth on every flight. Expectation bias. The pilot flying continues to fly unless the Captain says otherwise. The non flying pilot handles the communication and "reading and doing" of the normal and emergency checklists.

Below are pics from 2 pages of the manual concerning ejecting from the aircraft.



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- prior to abandoning the aircraft over the territory of a foreign state, depress the ~~INTERCOM~~ button of the GPO-2 RV transponder. In urgent cases, the crew should immediately abandon the aircraft by ejection.

Ejection

329. The ejection is to be performed by the crew commander's (instructor's) command.

After taking a decision for ejection, the crew commander should give the "Get ready for ejection" command. By this command, the trainee and the instructor should proceed as follows:

- lower the light filter of the crash helmet and, when flying in a pressure helmet, close the visor and tighten up the pressure helmet tensioner (open the blind-flying screen if it has been closed);
- tightly press the body against the seatback and the head, against the headrest pad.

CAUTION. IF IS FORBIDDEN to remove the legs from the pedals and place them on the foot guards.

The preparatory operations completed and posture for ejection assumed, the trainee's reports "Ready" to the instructor, grips the twin ejection handle with both hands (palms inside) and removes the handle interlocking levers (without pulling it). Upon receiving the trainee's "Ready" report, the instructor should give the "Bail out" command, grip the twin ejection handle with both hands (palms inside), squeeze the interlocking levers on the twin ejection handle and pull it back and up. In so doing, firmly hold the handle and do not move the arm elbows aside (do not use the pull force throughout the travel of the handle).

After ejection, the pilots should hold the handles firmly in the hands up to the moment of steady descent together with the seat (when the pilot separates from the seat, the handle is also separated).

Note. If one of the pilot's hand is injured, the ejection is possible by means of any of the seat ejection handles provided the prescribed ejection procedure is followed.

- CAUTION.**
1. If the canopies fail to get jettisoned by means of the ejection handles, jettison them by operating the centralized canopy jettison system handle, for which purpose, hinge it off and pull it fully downward. In jettisoning the canopies, hold the ejection handle with the left hand (but do not pull it) to prevent it from dropping out of the hands under the action of the airstream after the canopies have been jettisoned and eject in a usual manner.
 2. If the canopies have not been jettisoned by means of the instructor's handle, the trainee is given a command to jettison the canopies by means of the centralized canopy jettison system handle located in the front cabin. After that, jettison in a usual manner.

330. In urgent cases, the instructor is allowed to order ejection by giving only one executive command "Bail out". On getting the executive command, the pilot should immediately assume a posture for ejection and perform the operations listed in Item 329.

CAUTION. 1. The pilot is allowed to eject the crew on command from the crew commander only.

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Please note the many times it says,

- The decision for ejection is adopted by the crew commander
- The ejection is to be performed by the crew commanders (instructors's) command.
- The pilot (observer in this case) is allowed to eject the crew on command from the commander only.

I also provided Mark with an emergency pocket checklist with normal and emergency checklists to be carried on board during flight.

It can be verified by my mechanic that has heard my flight brief many, many times that I always state, That if I had control of the jet I would rather fly it on the ground than to eject. I would then jokingly say that an ejection would make you 2 inches shorter and than no man would want to loose 2 inches!

Dan's thoughts;

There are FAA rules in place that allow certain aircraft to maintain the option of having ejection seats. Ejection seats give you the ability to eject but not always the right to. These ejection seats are a product of militaries to save the lives of the occupant(s), when there are no other options. The Mig-23 pilot operating guide instructs the crew to eject during certain emergencies and conditions. This in no way authorizes a crew flying this jet as a US registered aircraft in US airspace to eject when these conditions are met. We are civilian pilots flying a now civilian use aircraft in civilian airspace not in a MOA or over the open ocean or in a combat situation. No government agencies or aircraft manufacturers will be coming to your defense if your jet crashes following an ejection that leads to property damage or injury to the public. The manual was written by the manufacturer for the aircraft that was designed for wartime use or in a wartime training environment without regard to public safety on the ground in case of an ejection.

The fact remains that the ejection parameters for the seat are zero altitude and 85 KTS. At the time Mark ejected us we were very far from those parameters. I had sufficient airspeed and altitude to make my intended point of landing clear of the public and still remain in the parameters of the seat if needed at near touchdown.

Fuel Control Unit (My opinion)

My first 10 flights in the aircraft were uneventful with no major issues. The aircraft then developed an unacceptable fuel leak from the FCU. We located a used FCU that appeared to be in great condition, with no fuel leaks when installed. We completed checks on it to include full ground runs with and without afterburner. The National Test Pilot School chief test pilot at the time, now president of the school, Jim Brown III flew with me to continue my training. We experienced what appears to be the same conditions as the airshow incident except with Jim Brown III we had plenty of altitude and airspeed and time directly overhead the airfield to perform an air start which ended with an uneventful landing. At the time we could only assume that the replacement FCU was at fault, being that was the only major component we had changed from the last flight. Expectation bias. In the following months my mechanic had located 3 new, never used, zero time FCUs from the Ukraine. We purchased all three and installed one right away and continued flying with it with no issues. (An interesting note is that the time between overhauls on a new FCU is 1,000 hrs. As a comparison, the time between overhauls on the engine is 450 hrs.) Apparently the FCUs are so reliable that the time between overhauls is quite large. Initially after the airshow incident, I was thinking the FCU may have been the issue, but now I question the possibility of brand new FCU with now only about 12 hrs on it was the cause of the airshow incident. I firmly believe the engine issue with

Jim Brown III was not a faulty replacement APU but in fact was a failure of the Jet Nozzle Flap Control System. The exact same symptoms exhibited August 13, 2023.

Below is a picture from Jim Brown III's power point presentation he gave several years ago about it recent flights in both the MiG-21 and MiG-23. He discussed the engine incident he and I experienced in N23UB.

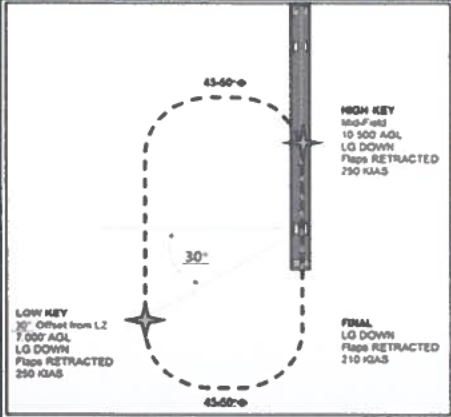
12:08 PM Wed Sep 27

MiG-21 Fishbed & MiG 23 Flogger. Cold War MiGs with JB Brown Test Pilot

MiG-23 FOLLOW-ON - 10 JULY 2018

Second Campaign Terminated Early

- Simulated Flameout (SFO) Pattern Development
 - First Attempt Resulted in 3,000' Low at Low Key
 - Second Attempt Initiated at 14,000' MSL
 - Engine Rolled Back
 - N2 - 80% RPM
 - N1 - 65% RPM
 - EGT 300°C
 - No Throttle Response
 - Shutdown and Relight (*Whew!!*) on Base to Final Turn
 - Immediate Full Stop Landing



Simulated Flameout Landing Pattern

45-40°

30°

LOW KEY
30° Offset from LZ
7,000' AGL
LO DOWN
Flaps RETRACTED
250 KIAS

HIGH KEY
30° Offset
10,500' AGL
LO DOWN
Flaps RETRACTED
250 KIAS

FINAL
LO DOWN
Flaps RETRACTED
210 KIAS

45-40°

40

55:24 / 1:13:47

On the following page is a picture from the MiG-23 pilot operating guide which discusses the Failure of Jet Nozzle Flap Control System. The incident flight on 9/13/2023 and training flight with Jim Brown III on 7/10/2018 appear to be identical.

ensured and start the engine;

- after the engine is started, continue the flight at a subsonic speed preventing the exhaust gas temperature from exceeding 620°C.

Failure of Jet Nozzle Flap Control System

254. Symptoms:

- insufficient engine thrust with the engine running at non-reheat power;
- with the engine running at maximum power, the exhaust gas temperature is 100 - 150°C below the normal one and LP rotor speed exceeds HP rotor speed by more than 8 per cent.

255. Actions:

(a) during the take-off run immediately discontinue the take-off using all means to brake the aircraft; shut down the engine, if necessary;

(b) if the failure is revealed during the second half of the take-off run when the discontinuance of the take-off endangers the pilots' lives, turn on the EMERG JET NOZZLE CTL switch and continue the take-off, then, act in accordance with the situation;

(c) in flight:

- turn on the EMERG JET NOZZLE CTL switch;
- continue the flight, preventing the exhaust gas temperature from exceeding 620°C; to this end, check the HP rotor speed which may increase.

Note. Bear in mind that shifting the EMERG JET NOZZLE CTL switch to the ON position (the STBY ENG SYST inscription on the annunciator illuminates in either cabin) will involve the following:

- the jet nozzle flaps are set so as to obtain the minimum diameter;
- the thermal regulator becomes switched off;
- the possibility of turning on the afterburner is excluded;
- the HP rotor speed and exhaust gas temperature will increase (at certain engine power).

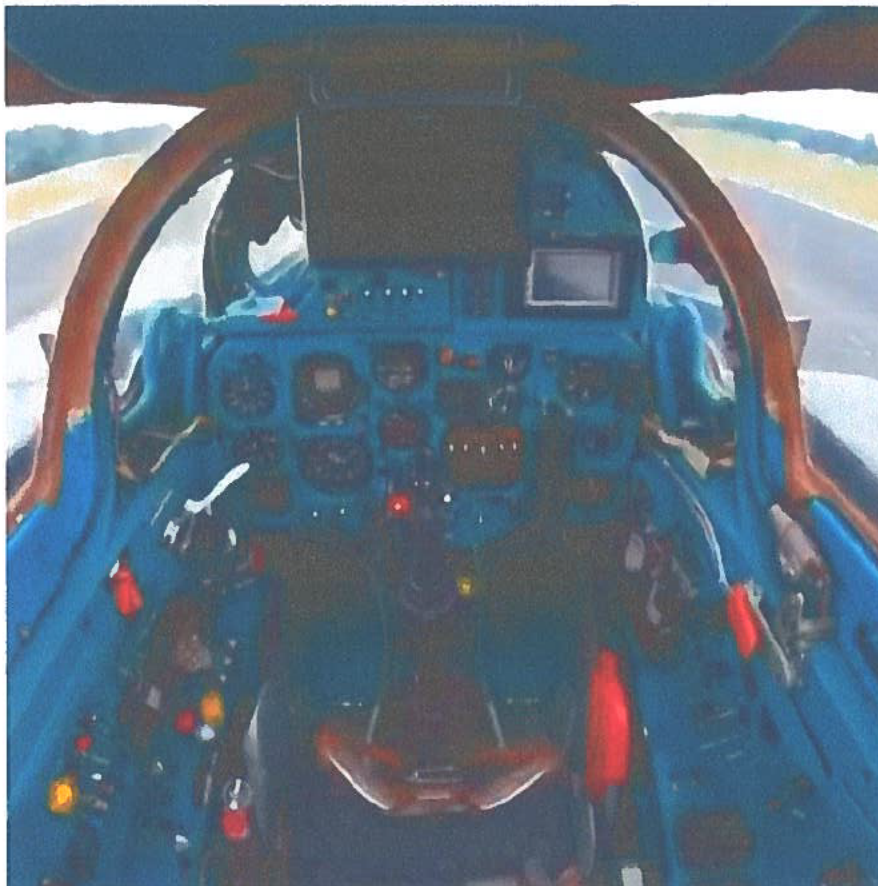
Failure of Engine Automatic Fuel Control System

Afterburner (My opinion)

As previously mentioned, the afterburner not lighting during the show pass was just an indication of the already reduced power state of the engine, the engine is programmed not to go into burner if selected if it doesn't produce 100% non after burning thrust first. It just happened to be the most significant indication to me at that time something went wrong. I don't believe there was any issue with the burner since it had just worked on takeoff. The non lighting of the burner was a symptom of the problem, not the cause. Although a few seconds later into the problem I had the thought of a jet exhaust nozzle failure as previously mentioned, and took steps to correct that.

Engine thrust at time of incident

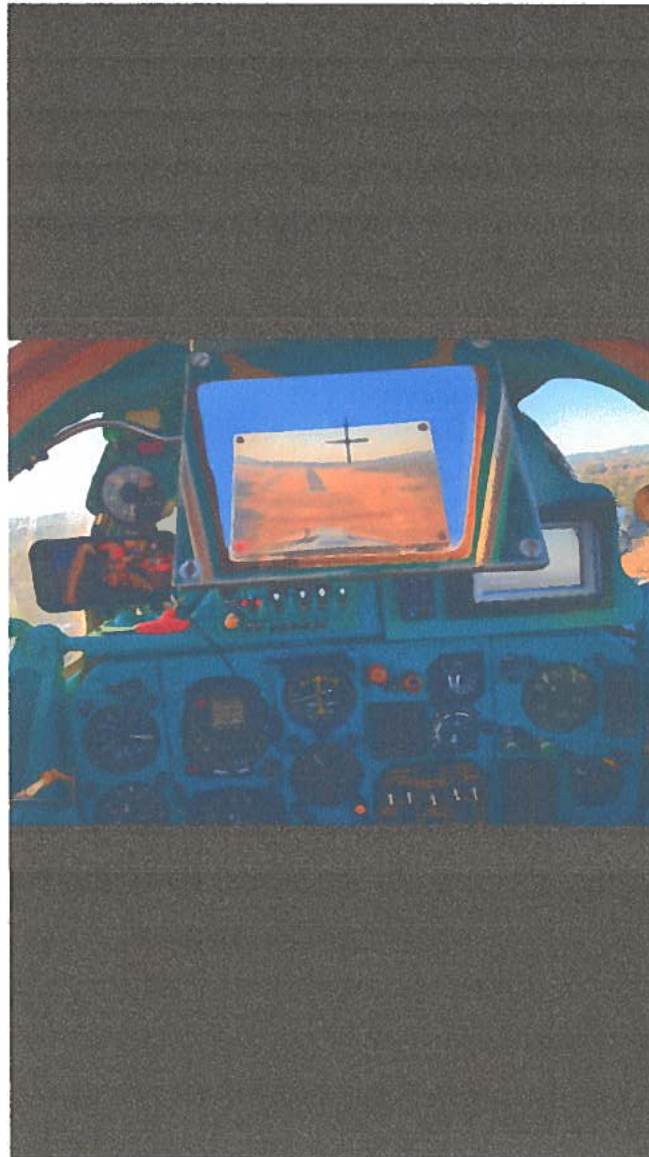
I never got a look at the actual rpm gauge or was a number given to me or referenced by anyone during the incident flight. I have mentioned that according to the way the aircraft felt and flew, I believe it was similar to the output during the previous event Jim Brown III and I had experienced years earlier. That would put the RPM at 80 something percent. Again, not enough to maintain an altitude and airspeed but a significant output above idle RPM (which is 63-66 RPM). Below is a short video clip taken from the empty back seat on one of my training flights. Note as the throttle advances from idle towards the 80% indication (8-9 second mark) the aircraft is already producing enough thrust to overcome the friction on the ground with a full tank of fuel and accelerate the jet.



Select image to the left
and press play

Observe the top right 2
needle RPM gauge just
below 5 in GPS

For comparison, below is a picture taken from the rear cockpit on approach to my home field Longview Texas. The rear cockpit periscope is extended, showing the runway in site. This stabilized approach is at a mile from touchdown 700 MSL, about 335 AGL, 150 KIAS , Gear down, full flaps and RPM at about 90%. Airspeed gauge left of gyro. Altimeter just below airspeed gauge. RPM far right under 5 in GPS.



My estimation is that at the time of me being ejected from my flying position, I was at about 30 degrees AOB, 190 KTS, gear up, half flaps, 80% RPM and 800-900 AGL, closing in on the field across the highway, about a 1/2 mile away. Which was approximately 2,000 ft from the actual crash site. In my opinion and experience, very doable. I believe it was only a matter

of 3-5 secs before engine power was restored and I would have been able to make a left base entry to land on RNY 27. To compare my estimated position at the time of ejection to the normal stabilized approach above. I was higher, faster, cleaner (significantly less drag with gear up and flaps at 1/2), closer to intended point of landing and still had more lift available once I was lined up on the correct heading and leveled the wings. The only deficit I had was 10 percent less RPM.

In conclusion I firmly believe all indicators point to a failure of the Jet Nozzle Flap Control system. As I was continuing to fly the aircraft away from the public, I diagnosed the problem and took steps to correct it by activating the Emergency Nozzle Control Switch. Mark said "We needed to get out of the jet", I responded, "NO". As I continued to fly and troubleshoot, without warning, I was ejected from the cockpit. I believe the engine was able to make full (non afterburner) power prior to it crashing unpiloted. **The cause of the accident was that no pilot was at the controls.** 100 percent of the time, planes will crash without being piloted. Engine issues have happened in the past and will continue in the future. Only a very small percentage result in a crash. **This loss of aircraft and potential loss of life was a result of the backseater, ejecting both crew members from the cockpit.**