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

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

BASI	C INFORMA	TION											
Accide	nt/Incident Loc	ation					Ac	cident/Incid	lent Date/	Гіте			
	City/Place: Wint				_ State: C	CA	Da	te: <u>05/</u>	14/2022	Lo	cal Time: _	12:15	
ZIP: <u>95</u>	6694 (Country: US	Α					mm/de	d/yyyy				
Latitude	38.59993365483	8655	Longitude: -121.	9801274882	21539					111	me Zone: _	PST	
			legrees:minutes:sec				Co	ollision with	Other Air	craft: C) Midair	OOn-groun	d O None
AIRC	RAFT INFO	RMATIO	N										
Registr	ation Number:	N605PK						☐ IFR-Equip☐ Commerci					
Manufa	acturer: Pyka							☐ Commerci		igiit			
	Pelican 7						M	laximum Gr	oss Weigh	t: <u>1320</u>		lbs	
Serial N	Number: <u>1605</u> 6	6PS0025					W	eight at Tin	ne of Accid	lent/Inci	dent: <u>90</u> 0)	_ lbs
Year of	Manufacture:	2022					Nı	umber of Se	ats: 0		Flight Cre	ew Seats:	
Amateu	ır-Built: OYes		Kit/Plans Mal	ke:				abin Crew Sea					
	⊙ No		Original Design		1		Nı	umber of E	ngines: 4				
_	ry of Aircraft		irworthiness Ce	rtificate		Landing Ge		• .			e Type (Se		
AirplBallo		(Check all to	* * * * /			(Check all the	_	o <i>ply)</i> ractable		O Reci O Turb	procating	O Liqui O Solid	d Rocket Rocket
OBlim	o/Dirigible	☐ Norma	ıl 🗖 Restric			✓ Tricycle	rcon		ailwheel	O Turb		_	d Rocket
OGlide OGvro		☐ Aeroba☐ Balloo	 -							OTurb		ONone OUnkn	
OHelic		Comm				☐Amphibia ☐Emergenc			igh Skid kid	O Turb		OUNKI	own
OPowe		Transp				□Float	,	□S	ki				
O Rock OUltra		☐ Utility		Light-Spo mental Ligh		Hull		□S	ki/Wheel	Fuel Sy	stem Type	(Reciprocativ	ıg)
OUnknown			·	*	☐ Other Lau	ınch	Recovery Sy	stem	O Carb	uretor	O Fuel-	Injected	
		None		Unknown	(00.1)	■ None		Πſ	Inknown				
			Ensino		Manuf	acturer's		Date	Rated Pow O Horsey		Total Time	Time	
Engine	Engine Manufa	cturer	Engine Model/Series			Number		of Mfg. mm/dd/yyyy	O lbs of		(hours)	Inspection (hours)	(hours)
Eng. 1	Sunray		DT13855								9	9	
Eng. 2	Sunray		DT13855								9	9	
Eng. 3	Sunray		DT13855								9	9	
Eng. 4	Sunray		DT13855	Propello	1	⊙ Fixed P	itch		Duan	allan 2	9	9 Fixed Pitch	
Last Ir	spection Type			Propend	er i	-	ollable Pitch			O Controllable Pitch			
O100-H		inuous Airwo			_	OGround	Adj	justable			_	Ground Adjus	stable
O AAIP O Annu		ditional Inspec nown	ction	Manufacturer: E-Props						-	E-Props	3	
Date La	ast Inspection:	2/28/20	022	Model: <u>2-75-125-CCW</u>							125-CW		
2	not mappedion.	mm/dd/yy		ELT Ins	stalled:	OYes •	No		Additio □AD		ipment (Check all that	apply)
	ne Total Time:		hrs	If Yes:	£0.04				_	S-в frame Para	chute		
_	rs measured at (S		:1 4/7 :1 4	Model or		er:					ck Indicato	r	
TSO						(121.5 MHz) C) C9	1a (121.5 MH	z) Aut	opilot a Recorde	r		
Type of Maintenance Program (Select one)					OC126	(406 MHz)			□Elec	etronic Fli	ght Bag or	Handheld De	vice
() (onditional (Amateur-pillit only)						unted in aircra			Electronic Multifunction Display				
Manufacturer's Inspection Program					nected to anterer		? OYes ON		dheld GP		t Dispiay		
Other Approved inspection Program (AAIP)			If activa		. O165 O	INO			ds Up Dis	1 2			
_	, specify:	CSS				ocating Aircra	ft:	OYes ONo		oard Wea	ther king Device	a .	
Descri	otion of Fire Ex	tinguishing	System	If not ac	tivated:				✓ Stal	l Warning	System		
None	e		-	Indicate	Reason:	Impact Da		e		eo Record er, Specify	ing Device		
O Spec	1fy:					☐ Fire Dama ☐ Battery Ex		d/Damaged		or, specify	y -		
						Unknown	PHO	Dumugu					

OWNER/OPERATOR INFORMA	ATION					
Registered Aircraft Owner		City: Oakland				
Name: Pyka Inc.		State: CA ZIP: 94607				
Fractional Ownership Aircraft: O Yes •	No	Country: USA				
Operator of Aircraft	gistered Owner	☑ Same Address as Registered Owner				
Name:		City:				
Doing Business As:		State: ZIP:				
Air Carrier/Operator Designator (4 Character	er Code):	Country:				
Operating Certificates Held (Check all that apply)	Regulation Flight Conducted Un	D 0 1 0 71 D 101 107 100 107				
□ None □ Flag Carrier Operating Certificate (FAR 121) □ Supplemental □ Air Cargo □ Foreign Air Carriers (FAR 129)	©FAR 91 OFAR 129 OFAR 4 OFAR 103 OFAR 133 OFAR 4 OFAR 121 OFAR 135 OFAR 4 OFAR 125 OFAR 137 OFAR 4	431 Non-Scheduled or Air Taxi O International				
☐ Rotorcraft External Load (FAR 133) ☐ Commuter Air Carrier (FAR 135)	O FAR 91 Special Flight O Non-US, Commercial	O Cargo O Mail Contract Only				
□On-Demand Air Taxi (FAR 135) □Commercial Air Tour (FAR 136) □Agricultural Aircraft (FAR 137)	O Non-US, Non-commercial O Public Aircraft (Select one)	Purpose of Flight for FAR 91, 103, 133, 137 (Select one)				
□ Pilot School (FAR 141) □ Certificate of Authorization or Waiver (COA) □ Commercial Space Transportation Experimental Permit □ Commercial Space Transportation License □ Other Operator of Large Aircraft	O Armed Forces O Federal O State O Local O Unknown	O Aerial Application O Aerial Observation O Air Drop O Air Race/Show O Banner Tow O Business O Executive/Corporate O Aerial Application O Flight Test O Glider Tow O Instructional O Hersonal O Personal O Positioning				
Revenue Sightseeing Flight	Air Medical Flight	O External Load O Skydiving				
O Yes O No	O Yes O No					
AIRPORT INFORMATION (Fill in	if accident/incident occurred on app	proach, landing, takeoff, departure, or within 3 miles of an airport)				
Airport Name:		Distance From Airport Center:sm				
Airport Identifier:		Direction From Airport: degrees true				
Proximity to Airport: Off Airport/Airstri	On Airport/Airstrip ON/A	Airport Elevation: 150 ft. msl				
Runway Information		Condition of Runway/Landing Surface (Check all that apply)				
Runway ID:(L/R/C) Length:15 Runway/Landing Surface (Check all that all the control of the control	<i>pply)</i> dam □ Water //Wood _	☑ Dry ☐ Snow-Compacted ☐ Water-Calm ☐ Holes ☐ Snow-Crusted ☐ Water-Choppy ☐ Ice Covered ☐ Snow-Dry ☐ Water-Glassy ☐ Rough ☐ Snow-Wet ☐ Wet ☐ Rubber Deposits ☐ Soft ☐ Unknown ☐ Slush-Covered ☐ Vegetation ☐ Unknown				
Approach/Departure Segment (Select one)						
OTaxi OVFR Departure OTakeoff OIFR Departure Proc OInitial Climb	OOn Instrument App	proach ODownwind OLow Approach OBase OGo Around				
	edure/Clearance OLanding	OFinal OAborted Landing (after touchdown) OCrosswind OUnknown				
IFR Approach (Check all that apply) □None	edure/Clearance OLanding	5 7				
****	□MLS □Practice □LDA □GPS □ASR □Visual □Contact □Circling □Unknown	OCrosswind OUnknown VFR Approach (Check all that apply)				

"FLIGHT CREWMEMBER 1	" INFOR	MATIO	N							
"Flight Crewmember 1" Responsibilities at the Time of Accident/Incident										
 O Pilot O Co-Pilot O Student Pilot O Flight Instructor O Check Pilot O Flight Engineer O Other Flight Crew "Flight Crewmember 1" was pilot flying □ Yes □ No 										
		es 🗀 Ne								
"Flight Crewmember 1" Identificati First Name: Nathan	on			,	City of Da	oidanaa: A	lamada			
Middle Initial: L					-	esidence: A		ZID 04504		
					State: <u>CA</u>			ZIP: <u>94501</u>		
Last Name: White	~				Country:	_				
Age at time of Acciden	t/Incident:		Date of E			<i>m</i> .	m/dd/yyyy			
		Cei	rtificate Nun							
	Occupied	5 F	O I I I		straint Ty	ype		-	Inflatable F	Restraints
O None O Fatal O L O Minor O Unknown O R		Cont Rear	O Unknov	wn	Available		Used		□ Not Inc	tallad
		Single			O None O Lap o		O None O Lap onl	y	☐ Not Installed	
Pilot Certificate(s) (Check all that app	(y)				O 3-poir	nt	O ³ -point		Not De	
□ None □ Flight Instructor	Com		US M		O 4-poir O 5-poir		O 4-point O 5-point		☐ Deploye	
☑ Private☐ Recreational☐ Student☐ Sport		ne Transpo nt Engineer		n	O Unkn		OUnknov	vn	_	
_ sport	-									
Principal Occupation Medical	Certificate					tificate Va	=		Date of Las	st Medical
O Pilot O None O Class 1	⊙ Cla		(C + D')	•		nitations/waivers	_	Inknown	4/23/202	21
Other Class 1 Unknown Class 2		ver s Licen known	se (Sport Pilot		Special Issu		, O1	/A	mm/dd/yy	
Medical Certificate Limitations										
None										
Medical Certificate Special Issuance	:									
		1								
Date of Last Flight Review or Equivalent, Including		_	Review Airo	eraft						
	/2019	_	Cessna							
mm/d	d/yyyy	Model:	152							
I	Aircraft Ra	0(/		ent Rating(s	s)		r Rating(s)			
(Check all that apply) (Check ☐ None ☐ Non	all that apply,)	(Check al	l that apply)		(Check all i ✓ None	that apply)	_	1 In atmosphere	A implanta
☑ Single-Engine Land ☐ Airs			☐ Airpla	ine			e Single-Eng		Instrument Instrument	
☐ Single-Engine Sea ☐ Ball☐ Multiengine Land☐ ☐ Glid			Helico			☐ Airplan	e Multi-Engi	ne 🗆	Helicopter	•
☐ Multiengine Land ☐ Glid ☐ Multiengine Sea ☐ Gyro			☐ Power	red Lift		☐ Gyropla ☐ Powered			Glider Sport	
☐ Heli	copter							_	- ~F ***	
Type Ratings	ered Lift					Student E	ndorsemer	nts (Include	datas)	
Type Ratings						Student E	muoi seinei	its (include)	uuies)	
								1		
Flight Time (Enter appropriate	ll Thi	is Make	Airplane Single	Airplane		Inst	rument			Lighter
*	raft &	Model	Engine	Multiengine	Night	Actual	Simulated	Rotorcraft	Glider	Than Air
Total Time	60									
Pilot in Command (PIC)				1		1		1	1	1
m: v	16.6									
Time as Instructor	16.6									
This Make/Model	16.6									
	16.6									

"FLIGHT CREWMEN	MBER 2" INFORI	MATIO	N							
"Flight Crewmember 2" Responsibilities at the Time of Accident/Incident										
OPilot OCo-Pilot O Student Pilot OFlight Instructor OCheck Pilot OFlight Engineer OOther Flight Crew "Flight Crewmember 2" was pilot flying □ Yes □ No										
0	–	s un	NO							
"Flight Crewmember 2" Id					a					
First Name:						esidence:				
Middle Initial:					State:		Z	IP:		
Last Name:				_	Country:					
Age at time of	Accident/Incident:		Date of Bir	th:		mi	n/dd/yyyy			
		Certi	ificate Numb	er:						
Degree of Injury	Seat Occupied				Restraint T	Гуре		I	nflatable R	estraints
O None O Fatal O Minor O Unknown		Front Rear	O Unknow	'n	Availal	ole	Used			
O Serious		Single			O Nor		O None		□ Not Inst	
Pilot Certificate(s) (Check of	all that apply)				O Lap O 3-po		O Lap only O 3-point	/	☐ Installed	
	Instructor	nercial	☐ US Mil	litary	O 4-pc		O 4-point		Deploye	
☐ Private ☐ Recre		e Transpor	t 🔲 Foreign	1	O 5-pc		O 5-point O Unknow	/n	Unknow	'n
☐ Student ☐ Sport	☐ Flight	Engineer			0 0		O cinano.			
Principal Occupation	Medical Certificate			N	Medical C	ertificate Va	lidity]	Date of Las	t Medical
O Pilot	O None O Clas	s 3				imitations/wai		nknown		
O Other	-		se (Sport Pilot		O With limi O Special Is	tations/waiver	s ON	/A	mm/dd/yy	
O Unknown Medical Certificate Limita	<u> </u>	IIOWII			O Special Is	suance				77
Medical Certificate Liffita	tions									
Medical Certificate Specia	l Issuance									
Date of Last Flight Review		Flight I	Review Airci	raft						
or Equivalent, Including		Make:								
FAR 121/135 Checks:	mm/dd/yyyy	Model:								
Airplane Rating(s)	Other Aircraft Rat	ting(s)	Instrume	ent Rating	g(s)	Instructor	· Rating(s)			
(Check all that apply)	(Check all that apply)	- B(-)	(Check all			(Check all t	0.7			
□ None	None		None			None			Instrument A	
☐ Single-Engine Land☐ Single-Engine Sea	☐ Airship ☐ Balloon		☐ Airplan ☐ Helicor			*	Single-Engir Multi-Engine		Instrument H Helicopter	elicopter
☐ Multiengine Land	Glider		Powere			☐ Gyropla	ne		Glider	
☐ Multiengine Sea	☐ Gyroplane ☐ Helicopter					☐ Powered	Lift		Sport	
	☐ Powered Lift									
Type Ratings			•			Student E	ndorsement	s (Include de	ites)	
			Airplane			т	trument			
Flight Time (Enter appropriation number of hours in each box)		s Make Model	Single	Airplan	l l			Datamanaft	Cidon	Lighter
Total Time	Aircraft & I	viouei	Engine	Multiengi	ine Nigh	t Actual	Simulated	Rotorcraft	Glider	Than Air
Pilot in Command (PIC)										
Time as Instructor										
This Make/Model										
Last 90 Days										
Last 30 Days										
Last 24 Hours							1			

ADDITIONAL FLI	GHT CREWMEI	MBERS (Ex	clusive of cabin cr	ew, complete	the followin	g information)		
Crew Name and Add	ress					Seat Occupie	d	Injury
First Name: Middle Initial: Last Name:		State: _	f Residence:	ZIP:		O Left O Center O Right	O Front O Rear O Single O Unknown	O None O Minor O Serious O Fatal O Unknown
Pilot Certificate(s) (C None Private Student Type Rating/Endorse Accident/Incident Ai	☐ Flight Instructor ☐ Recreational ☐ Sport	☐ Airline ☐ Flight T	e Transport	t the Time	hrs	Restraint Typ Available O None O Lap Only O 3-point O 4-point O 5-point O Unknown	Used O None Lap Only 3-point 4-point 5-point Unknown	Inflatable Restraints Not Installed Installed Not Deployed Deployed Unknown
Crew Name and Add	ress					Seat Occupie	d	Injury
First Name: Middle Initial: Last Name:		State: _	f Residence:	ZIP:		OLeft OCenter ORight	O Front O Rear O Single O Unknown	O None O Minor O Serious O Fatal O Unknown
Pilot Certificate(s) (C None Private Student Type Rating/Endorse Accident/Incident Air	☐ Flight Instructor ☐ Recreational ☐ Sport	☐ Airline ☐ Flight	nercial US e Transport For Engineer Total Flight Time a f this Accident/Inc	t the Time	hrs	Restraint Tyl Available O None O Lap Only O 3-point O 4-point O 5-point O Unknown	Used O None D Lap Only O 3-point O 4-point O 5-point O Unknown	Inflatable Restraints Not Installed Installed Deployed Unknown
PASSENGER(S) /	OTHER PERSO	ONNEL (Inc	clude cabin crew; c	ontinue on s	eparate shee	t if necessary)		
Name and Address			Seat	Injury	Restraint T	`уре	Inflatable Restraints	Age
First Name: Middle Initial: Last Name:	State:	ZIP:	OCenter ORight OUnknown	O None O Minor O Serious O Fatal O Unknown	Available ONone OLap Only O3-point O4-point O5-point OUnknown	Used O None O Lap Only O 3-point O 4-point O 5-point O Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years If Under 5, O Child Restraint O Lap-Held O Unknown
First Name: Middle Initial: Last Name:	State:	ZIP:	OCenter ORight OUnknown	O None O Minor O Serious O Fatal O Unknown	Available O None O Lap Only O 3-point O 4-point O 5-point O Unknown	Used O None O Lap Only O 3-point O 4-point O 5-point O Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years
First Name: Middle Initial: Last Name: OCrew	State:	ZIP:	OLert OCenter ORight OUnknown	ONone OMinor OSerious OFatal OUnknown	Available ONone OLap Only O3-point O4-point O5-point OUnknown	Used O None O Lap Only O 3-point O 4-point O 5-point O Unknown	☐ Not Installed☐ Installed☐ Not Deployed☐ Deployed☐ Unknown	□Under 5 years
First Name:Middle Initial:Last Name:OCrew	State:	ZIP:	— OLeπ OCenter ORight OUnknown	O None O Minor O Serious O Fatal O Unknown	Available ONone OLap Only O3-point O4-point O5-point OUnknown	O 3-point O 4-point O 5-point	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years

FLIGHT ITINERARY I	NFORMATIO	N		•			
Last Departure Point	1	e of Departure	Destination	on		Type Fligh	nt Plan Filed
Airport ID:		•	Airport ID:			O None	O VFR/IFR
City:	Time	::				O Company	
State:		Zone:				O Military O VFR	VFR O Unknown
Country:						_	OYes ONo OUnknown
Type of ATC Clearance/Ser	vice (Check all that	apply)					
□ None □	Special VFR IFR	☐ Spe	cial IFR R On Top		☐ VFR Flight Foll☐ Traffic Advisory		☐ Cruise ☐ Unknown / NA
☐ Class B ☐ Class C ☐ Class D ☐ Class E ☐	Class G Demo Area Warning Area Prohibited Area Restricted Area	☐ Mil ☐ Airj ☐ Jet ′ ☐ TRS ☐ FAI	itary Operations port Advisory Ad Fraining Area SA R 93	rea	□Special □Air Traffic Conti □Unknown	rol Area	Altitude of In-Flight Occurrence: ft msl
WEATHER INFORMA		ACCIDEN'	T/INCIDEN				
Source of Pilot Weather Inf (Check all that apply) National Weather Service Flight Service Station TV/Radio Automated Report Commercial Weather Service On-Board Weather	☐ Com ☐ Mili ☐ Inter ☐ Non	tary net e		Facility ID: Observation Ti Time Zone: Distance from	servation Facility ime: Accident Site: Accident Site:		nm
Basic Conditions		Light Conditi	on				
♥ VMC ♥ IMC ♥ Unknown		ODawn ODay	ODusk ONight		k Night OUr ht Night	ıknown	
Sky/Lowest Cloud Conditio	n	Ceiling			Temperature:		(C) or(F)
	Thin Broken Thin Overcast	O None (Clear) O Broken		Obscured Indefinite	Dew Point: _	(0	C) or(F)
	Unknown	O Overcast	_	Unknown	Altimeter Sett		
Lowest Cloud Condition Ho	eight	Ceiling Heigh	t			or	MB
	ft agl			ft agl			
Wind Direction	Wind Speed		Wind Gusts		Visibility		miles
☐ Variable	☐ Calm		☐ Not Gustin	ng	DVD	 :	
_	Light and Varia	able	_				
-or- Direction: degrees true	-or- Speed:	kts	-or-	kts		':	
	1		Speed:	KIS	Density Altitu		ft
Intensity of Precipitation O Light O Moderate O Heavy O N/A O Unknown	Type of Precipit ☑ None ☐ Rain ☐ Snow ☐ Hail ☐ Rain Showers	Drizzle	☐ Freezing ☐ Snow S S ☐ Ice Pello S ☐ Freezing	hower ets Shower	None Blowing Du Blowing Sa Blowing Sn Blowing Sp	ust G	Check all that apply) Fog Ground Fog Haze Ice Fog Smoke Unknown
Icing Forecast Amount O None O N/A O Trace O Light O Moderate O Severe O Unknown	⁄n	Icing Actual Amount O None O Trace O Light O Moderate O Severe O Unknown	Type O N/A O Rime O Clear O Mixe O Unkr	d d	Turbulence Type (Check a	uced	Severity Light Moderate Severe Extreme
NOTAMs (D and FDC), A	AIRMETs, SIGN		s in effect at	the time of t	 he accident/inci	dent:	

DAMAGE	DAMAGE TO AIRCRAFT AND OTHER PROPERTY										
Aircraft Da	O	Aircraft Fire	•	Aircraft Explosion							
O None O Minor	SubstantialDestroyed	O None O In-Flight	O Both Ground and In-Flight O Fire at Unknown Time	None In-Flight	O Both Ground and In-Flight O Explosion at Unknown Time						
	O Unknown	On-Ground	O Unknown	On-Ground	O Unknown						
				•							

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

Aircraft was totaled. Batteries caught on fire, but no spread. Aircraft landed in an agricultural field, and caused no injuries or damage to property.

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 and location, services obtained, and intended destination. Provide as much detail as possible.

FIRST FLIGHT OF THE DAY

Aircraft was assembled. No anomalies found during assembly. Wings were installed with wing pins in. Left and right air data booms were installed and functional. Batteries were secure. Hatches were installed and secure.

The remote pilot station was also assembled. Telemetry antenna was set up on tripod. Transmitter was functional with appropriate battery level. Spare battery was available.

Preflight inspection of the aircraft was performed. Tire pressures were verified to be 40 PSI. Brakes were verified to be functional without leaks. Landing gear legs were checked for damage. Propellers were checked for damage. Motor bearings were checked for excessive play. Air data boom assembly was verified installed and functional through alignment of vanes and blowing on pitot tubes. IMUs were functional through lifting of wing and tail with aircraft in pilot mode (control stabilization on). Laser and RADAR altimeters were verified to be clean and free obstructions. Spray booms were not installed. Control surface deflections were verified. No issues found throughout preflight inspections.

Mission planning was performed. 3d Map was loaded. Safe loiter point was set. Takeoff and landing points were verified. Spray polygon and spray rate were set.

Tank was filled to 40 gallons (water). Tank level was verified on the GCS.

High voltage switch was turned on and the aircraft was armed.

Aircraft was taxied up and down the runway to verify IMU data.

Airspace verified clear. Wind confirmed good. Final battery checks confirmed good. Tank level confirmed good. Ground control station speakers confirmed operational.

Aircraft took off in autonomous mode and flew to start the spray mission.

Aircraft pitched up during spray mission while banked due to a LIDAR measurement. Aircraft was switched to pilot mode and maneuvered to a safe altitude.

Edge of spray mission was moved to be further from obstacles.

Aircraft switched back to autonomous mode.

Aircraft completed spray mission and auto landed.

SECOND FLIGHT OF THE DAY

Tank filled to approximately 40 gallons.

RECOMMENDATION (How	could this	accident/incident ha	ve heen nre	vented?)					
Operator/Owner Safety Recomm		accidentificacine ne	ive been pre	venteu : j					
1		and the full report o	f the root ca	use will h	ne extremely h	nelnful in determini	ng how the accident		
Our internal investigation is proceeding, and the full report of the root cause will be extremely helpful in determining how the accident could have been prevented. We will provide this report to the NTSB as soon as it is available.									
It is clear that this incident will	inform cha	nges to the design	and/or man	ufacturin	g technique of	f the wing.			
MECHANICAL MALFUN	NCTION/F	FAILURE (If mor	e space is n	eeded co	ntinue on sena	arate sheet)			
Was there Mechanical Malfund			c space is in	ccaca, co	minuc on sept		Total Time/Cycles		
(If yes, list the name of the part, many			scribe the failu	re.)			On Part		
The right wing skin peeled op	en and dep	arted the aircraft.	t is made by	Pyka Ind	c. part numbe	r PN0116-7.	9 Hours		
							Cycles		
							Cycles		
							Time Since This Part		
							Inspected/Overhauled		
							9 Hours		
FUEL & SERVICES INF	ORMATI	ON							
Fuel on Board at Last Takeoff		Fuel Type	_		_	_			
(Convert from pounds, as necessary)		O 80/87 O 100 Low Lead	O 115/145 O Jet A		O Jet B O JP8	O Other, specify _			
	Gallons	O 100/130	O Jet A-1		O Automotive				
Other Services, if Any, Prior to	Departure								
EVACUATION OF AIRC	RAFT								
Was an emergency evacuation	of the aircr	oft performed?	☐ Yes	□ No					
Method of Exit – Describe how		<u> </u>			d each location	1			
Niction of Exit Describe now	ше оссирин	is extred the new me	шу оссирани	, e vacuate	a cuen location	•			
	01110101								
OTHER AIRCRAFT – C				-	•	-	•		
Aircraft Registration Number		ırer:					mage to Other Aircraft Destroyed		
	Model:						Substantial None		
Registered Owner of Other Air	craft			Pilot of	Other Aircraf	t			
Name:				Name: _					
City:				City:					
State: ZIP:				Country:		LIF			

ADDITIONAL INFORMATION (Please type or print in ink)								
		JN (Please type or print in ink) is needed for any answers.						
I HEREBY CERTIF		HE ABOVE INFORMATION IS COMPLE	ETE AND ACCU	JRATE TO THE BEST OF N	MY KNOWLEDGE			
Date of this Report 05/24/2022 mm/dd/yyyy		Pilot/Operator: Nathan White Check here to electronically sign this of						
Name:		erator is Filing Report		_ Title:				
or □C	heck here to	electronically sign this document						
		FOR NTSB (JSE ONLY					
NTSB Accident/Incid WPR22LA183	dent No.	Reviewed by NTSB Regional Office AS-WPR	Name of Inves Eric M. Gutie		Date Report Received 5/24/2022			

FIRST FLIGHT OF THE DAY

Aircraft was assembled. No anomalies found during assembly. Wings were installed with wing pins in. Left and right air data booms were installed and functional. Batteries were secure. Hatches were installed and secure.

The remote pilot station was also assembled. Telemetry antenna was set up on tripod. Transmitter was functional with appropriate battery level. Spare battery was available.

Preflight inspection of the aircraft was performed. Tire pressures were verified to be 40 PSI. Brakes were verified to be functional without leaks. Landing gear legs were checked for damage. Propellers were checked for damage. Motor bearings were checked for excessive play. Air data boom assembly was verified installed and functional through alignment of vanes and blowing on pitot tubes. IMUs were functional through lifting of wing and tail with aircraft in pilot mode (control stabilization on). Laser and RADAR altimeters were verified to be clean and free obstructions. Spray booms were not installed. Control surface deflections were verified. No issues found throughout preflight inspections.

Mission planning was performed. 3d Map was loaded. Safe loiter point was set. Takeoff and landing points were verified. Spray polygon and spray rate were set.

Tank was filled to 40 gallons (water). Tank level was verified on the GCS.

High voltage switch was turned on and the aircraft was armed.

Aircraft was taxied up and down the runway to verify IMU data.

Airspace verified clear. Wind confirmed good. Final battery checks confirmed good. Tank level confirmed good. Ground control station speakers confirmed operational.

Aircraft took off in autonomous mode and flew to start the spray mission.

Aircraft pitched up during spray mission while banked due to a LIDAR measurement. Aircraft was switched to pilot mode and maneuvered to a safe altitude.

Edge of spray mission was moved to be further from obstacles. Aircraft switched back to autonomous mode.

Aircraft completed spray mission and auto landed.

SECOND FLIGHT

Performed pre takeoff checklist (The Preflight inspection must be completed before the first flight of the day, and after any time the aircraft is reassembled. Between successive flights only the Pre Takeoff checklist must be completed).

Same mission that had been used in the previous flight (with adjusted boundary) uploaded. Autonomous takeoff. Nominal flight in autonomous mode completing spray mission. No unusual behavior.

THIRD FLIGHT

Swapped to a fresh set of batteries. Tank filled to approximately 40 gallons.

Performed pre takeoff checklist

Same mission that had been used in the previous flight (with adjusted boundary) uploaded.

Autonomous takeoff. Normal climb out and cruise. Aircraft started sweeping left hand turn at ~125 ft AGL. No unusual behavior noted during turn. Suddenly the right wing skin, along with the flaps and ailerons) separated from the aircraft. The wing skins of the right wing opened up during separation and floated behind the aircraft as the aircraft rapidly rolled right and spun into the ground. Shortly after impact with terrain, the batteries caught fire (about the size of a campfire), but the fire did not spread to the surrounding area.