un Hall-local RCMPcontact Premier defaul - RCMP Air 4 nroute. Ground officers irching Rd 13-16 area ed Gary - looking for guidance ; timelines for getting back to work. Will call back Spoke w Shawn. Recommended 20 2 hrs then 30kt recce. RCMP AIR 4 onsite in mtact Spotted by ground RCMP 4 looking in pursuit Air 4 lost contact - brb. tring of coming in for fuel. alled Gary for advice for rocceding - Brad/Jeft/Gary nicall- Uncharted territory togest talking to Remp lot regarding what to do ow. - Looking for update as to ze, speed, élevation etc RCarp landed

Poul Dumoret 250-535-0395 Oliver Airport / Flying Club. 1º Retardant NW corner out of existing line 30-35 ha excursion Skimmers - NW comes than W Flow 1700 1 BCH Power trae pole burned off one pole above structures on E flank Firehank Al 1758 Raven 1 - escape on West Flank recce'd - poissed on to BD129 to 1757 U/S OHK tank. New retardant Ine along ridge line N flank - Unable to get down in to drainage. Will continue next 15-20 min 1920 & Oliver

Rite in the Rain

-local RCMP contact er defail - RCMP Air 4 on Premier detail enroute Ground officers searching Rd 13-16 area - Called Gary - looking for guidance re: timelines for getting back to work will call back Shawn, Recommended 1425 - RCMP Contact 1550 Air Pilot coming in Gara for update as to size, speed, élevation etc 1614 RCAIP Lando

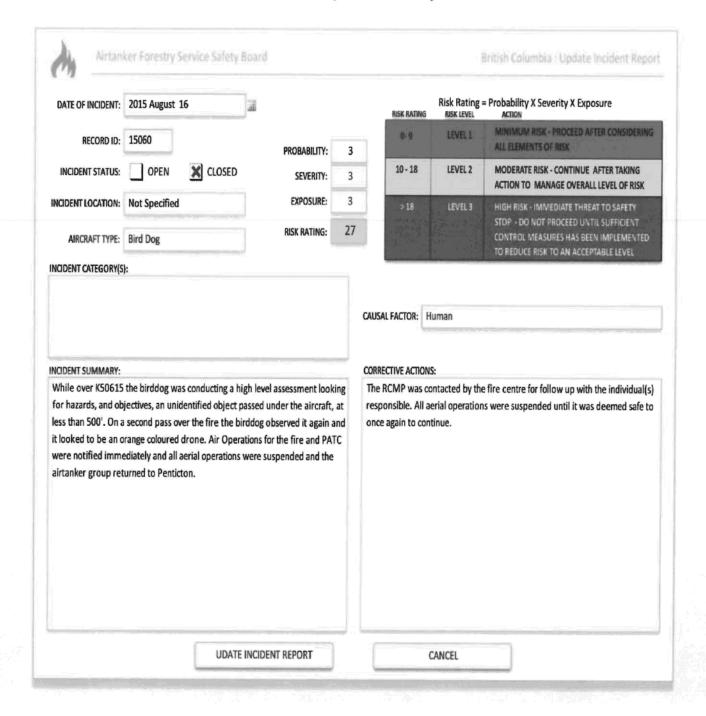


BRITISH COLUMBIA FOREST SERVICE AIRCRAFT INCIDENT REPORT

(Reference: Aviation Safety Manual June 23, 1997)

1.	DATE AND TIM	E OF INCIDENT: AUG 16 2015 , 12:20				
2.	LOCATION: Oliver BC, K50615					
3.	AIR CARRIER:	A/C TYPE:REGISTRATION:				
4.	PILOT:					
5.	F.S. PASSENGE	ERS: OTHER PASSENGERS:				
6.	WEATHER CON	IDITIONS: Sunny warm stable				
7.	NATURE OF TH	EINCIDENT: Over K50615 doing a high level				
	assessment	looking for hazards and objectives,				
		ified object passed under the aircraft (BD129				
	OVENO (3					
	and agriced	stored drone. Air operations was notified				
8.	NATURE OF AN	NATURE OF ANY INJURIES OR DAMAGE TO A/C OR PROPERTY:				
	no dama	DE de MA CE				
		d and a second and				
9.	CONTRIBUTING	FACTORS:				
	Software:	(Procedures, regulations, charts, briefing packages) CABS regs were not followed by drone				
	Hardware:	(Aircraft, systems, ancillary equipment)				
	· -	(moral, dystoris, andmary equipment)				
	Environment:	(Weather, visibility, work areas, landing areas)				
	Liveware (Others	s): (Pressures, distractions, training)				
	Liveware (Pilot):	(Training, experience, and attitudes, fatigue)				
	-					

	AVIATION INCIDENT REPORT Page 2
10.RECOMME	NDATIONS (BASED ON CONTRIBUTING FACTORS):
•	
· · · · · · · · · · · · · · · · · · ·	
•	
•	
11.CORRECTI	VE ACTION TAKEN:
District:	BD129 notified PATCO. RUCO (KR)
	BD129 notified PATCO. RWCO (KE)
-Protection:	
12.REMARKS:	
	Pilot Report Attached: [] Yes [] No
District Represe	entative / Protection Representative
Signature:	Signature: Bus D. Confessionative
Position:	
	Position: F.P.O Airtanker Operations Bruce Coutanche
	mp # 002738 / AAO #55 FURING TO THE REPORT OF THE REPORT O
106	OMPLETED AT FIRST OPPORTUNITY AND FORWARDED TO:
	TOTAL TOTAL TOTAL
	Protection Officer – Aviation trict Aviation Safety Designate
O DIS	trict Aviation Safety Designate



 From:
 Benson, Michael FLNR:EX

 To:
 Fisher, Radha FLNR:EX

 Subject:
 FW: DRONE OVER K50615

Date: Tuesday, July 12, 2016 4:27:33 PM

Attachments: <u>image003.png</u> <u>image004.png</u>

Michael Benson | Superintendent Provincial Airtanker Program BC Wildfire Service | Office: 250-312-3009 | Cell: 250-318-7164

From: Coutanche, Bruce FLNR:EX

Sent: Sunday, August 16, 2015 12:45 PM To: FLNR WMB Air Attack Officers Subject: FW: DRONE OVER K50615

FYI

From: Provincial Air Tanker Centre, Forests FLNR:EX

Sent: Sunday, August 16, 2015 12:42 PM

To: Coutanche, Bruce FLNR:EX; Brown, Corryn FLNR:EX; Capone, Holly M FLNR:EX; Cook, Jenna FLNR:EX; Fisher, Samantha FLNR:EX; Norgaard, Jessica FLNR:EX; Setka, Alysha FLNR:EX; Smith, Ellis

FLNR:EX; Thompson, Karla FLNR:EX Subject: FW: DRONE OVER K50615

From: RWCOKAM HPR R FLNR:EX

Sent: Sunday, August 16, 2015 12:42 PM

To: Henry, Murray W FLNR:EX; Spahan, Harry FLNR:EX; Maedel, Dave FLNR:EX; Meier, Ian R FLNR:EX Cc: INFOKAM, FOR FKA P FLNR:EX; Pepper, Kayla FLNR:EX; ZWCOK5, FOR FKA P FLNR:EX; PWCO,

HPR FLNR:EX; Provincial Air Tanker Centre, Forests FLNR:EX

Subject: DRONE OVER K50615

BCWS is suspending air operations over incident K50615 due to a drone observed in the restricted air space. IC and RCMP have been notified.

Will update as details follow.

BRAD LITKE

RWCO

BC Wildfire Service | Kamloops Fire Centre Office: 250-554-5511 | Cell: 250-319-3909 REPORT WILDFIRES: 1 800 663-5555/*5555



 From:
 Benson, Michael FLNR:EX

 To:
 Fisher, Radha FLNR:EX

 Subject:
 FW: Drones occurrences 2015

 Date:
 Tuesday, July 12, 2016 4:27:24 PM

Attachments: <u>image001.png</u>

Michael Benson | Superintendent Provincial Airtanker Program BC Wildfire Service | Office: 250-312-3009 | Cell: 250-318-7164

From: Lund, Shawn K FLNR:EX

Sent: Tuesday, December 8, 2015 10:13 AM

To: Benson, Michael FLNR:EX Subject: Drones occurrences 2015

#1

Year	2015
Occurrence Section	WMB
Occurence Category	Incident
SafeCom Required	No
SafeCom Completed	No
Date of Occurence	16/08/2015
When were you advised of the occurence?	16/08/2015 12:20 PM
If delay, why?	None, reporting was immediate
Location of Occurence	Penticton Fire Zone
Fire Number	K50615
Description of Occurence	While over K50615 the birddog was conducting a high level assessment looking for hazards, and objectives, an unidentified object passed under the aircraft, at less than 500'. On a second pass over the fire the birddog observed it again and it looked to be an orange coloured drone. Air Operations for the fire and PATC were notified immediately and all aerial operations were suspended and the airtanker group returned to Penticton.
Fire Centre	Kamloops; PATC
Out of Province BB number	
Occurence Involved?	Airplane
Ministry Business	Yes
Not Ministry Business, Explain	
Occupation	
Age	
Occurence Type	Risk of Collision/Loss of Seperation

Fatality	No
Damage to Aircraft	No
Estimated cost of damage	
Serious Injury	No
Phase of Flight	Manoevering
Mission profile	Birdogging
Aircraft Type	Fixed Wing
Aircraft model	Cessna 208
Weather Conditions	sunny, warm and stable
Contributing Factors: Software	CARS Regulations were not adhered to by the drone operator.
Contributing Factors: Hardware	
Contributing Factors: Environment	
Contributing Factors: Liveware (Pilot)	
Contributing Factors: Liveware (Others)	
Recommendations based on contributing factors	
Corrective Action Taken	The RCMP was contacted by the fire centre for follow up with the individual(s) responsible. All aerial operations were suspended until it was deemed safe to once again to continue.
Submitted by;	Bruce D. Coutanche

#2

Year	2015
Occurrence Section	Aviation; WMB
Occurence Category	Incident
SafeCom Required	No
SafeCom Completed	No
Date of Occurence	16/08/2015
When were you advised of the occurence?	16/08/2015 12:00 AM
If delay, why?	
Location of Occurence	Oliver

Fire Number	K50615
Description of Occurence	AOBD and AAO were communicating on victor regarding skimming operations which were about to commence on NW Corner. AOBD was HLCO (conducting turn over to incoming HLCO) on East Flank. At 1223, mid-conversation, BD states "I think I see a drone" and less than a minute later confirmed sighting of a UAV from above. His only description was that it was flourescent orange coloured from above. He immediately relayed the information to AOBD. AOBD in turn broadcast over victor to all rotary wing aircraft to depart fire and return to airport immediately as drone was sighted on the fire. All aircraft departed immediately. AOBD confirmed with BD that all fixed wing aircraft were also departed fire inbound for Penticton. While inbound to airport AOBD advised Fire Centre of situation and requested RCMP, and contacted all crews and advised to adjust operations accordingly as air support would be unavailable for an estimate of at least a few hours. When landed, AOBD phoned SPO Aviation and discussed incident and requested advice for re-engaging if drone was not found. AOBD liaised with RCMP officer in Premier's detail and he requested RCMP Air Services to assist. RCMP Air attended 2 hours later (1425) and at 1428 a member of the RCMP ground search group spotted the drone again. A member of SAR also spotted it shortly after. This was relayed to RCMP Air who continued to recce the fire until 1615. They landed and discussed issue with AOBD. AOBD then felt comfortable returning to work. Discussed with RWCO, SPO Aviation and RABC, briefed pilots and confirmed all were comfortable returning to work. AOBD was airborne at 1700 to recce fire and bucket support operations commenced at 1720. Total time grounded approximately 4 hours.
Fire Centre	Kamloops
Out of Province BB number	
Occurence Involved?	Helicopter; Airplane
Ministry Business	Yes
Not Ministry Business, Explain	
Occupation	
Age	
Occurence Type	Risk of Collision/Loss of Seperation
Fatality	No
Damage to Aircraft	No
Estimated cost of damage	
Serious Injury	No
Phase of Flight	Manoevering
Mission profile	Bucketing
Aircraft Type	Fixed Wing; Rotary Wing
Aircraft model	A-Star; Bell 212; Bell 412; Fireboss; Bell 206 Longranger; Turbo Commander
Weather Conditions	Clear and sunny, blowing smoke.
Contributing Factors: Software	No procedures for re-engaging after aircraft grounded and drone disappears without being found.
Contributing Factors: Hardware	
Contributing Factors: Environment	Aviaton operations were suspended for four hours. During this time the fire escaped retardant lines on NW corner and grew approximately 40 hectares. Fire also grew significantly in heavy timber in Testalinden Creek drainage.

Contributing Factors: Liveware (Pilot)	
Contributing Factors: Liveware (Others)	Individual flying drone against CARS
Recommendations based on contributing factors	All procedures were followed. RCMP involved and are continuing with investigation. Transport Canada to attend and conduct own investigation according to PACO Sandy McLean.
Corrective Action Taken	All aircraft immediately grounded. RCMP notified and attended with multiple ground officers, Search and Rescue (called out by RCMP) and RCMP Air 4. Communications with SPO Aviation regarding process for reengaging on incident when drone is not found. After four hours and thorough search by RCMP, air ops re-engaged after thorough recces of area and pilot briefing confirming all were willing to return to work. Carried on work uninterrupted for remainder of day. Ongoing investigation by multiple parties (WMB, RCMP and Transport Canada). Suggest development of guidelines regarding procedures for reengaging when drone not located.
Submitted by;	Leanne Ingham

#3

Year	2015		
Occurrence Section	Aviation		
Occurence Category	Hazard		
SafeCom Required	No		
SafeCom Completed	No		
Date of Occurence	01/08/2015		
When were you advised of the occurence?	01/08/2015 11:20 AM		
If delay, why?			
Location of Occurence	Shelter Cove		
Fire Number	K50391		
Description of Occurence	Unit crew was hiking in to the fire line and noticed a UAV flying overhead. The crew leader turned around and walked back down to Westside Road and located a man and his adult son operating the UAV. He asked them to immediately land the aircraft, which they did. He explained to them the hazard, discussed fire NOTAMs and restricted airspace over forest fires and asked them to pack up and leave. During this time, the admin 206B was enroute to the incident with the Branch Director (Unit Crew Supervisor) onboard. As soon as the crew leader heard the helicopter on repeater he contacted them, advised them of the UAV and advised the 206B to shut down immediately, which they did. The UAV operators advised that they wanted to take photos of		

	the fire and that they weren't aware that the fire was still active as little to no smoke was visible. They commented that they had just been in a different fire centre and spoke to aviation staff regarding the potential to be hired for work in that centre. They apologized and departed the incident when asked.
Fire Centre	Kamloops
Out of Province BB number	
Occurence Involved?	Unit Crew; Helicopter
Ministry Business	Yes
Not Ministry Business, Explain	
Occupation	
Age	
Occurence Type	Risk of Collision/Loss of Seperation
Fatality	No
Damage to Aircraft	No
Estimated cost of damage	
Serious Injury	No
Phase of Flight	Enroute
Mission profile	Repositioning
Aircraft Type	Rotary Wing
Aircraft model	
Weather Conditions	Clear and sunny
Contributing Factors: Software	
Contributing Factors: Hardware	
Contributing Factors: Environment	
Contributing Factors: Liveware (Pilot)	
Contributing Factors: Liveware (Others)	UAV operators not familiar with CARS; UAV operators not contacting proper authorities for permission/unaware that fire was still actively being fought; UAV operators stated that they had previously been trying to be hired to assist on fires
Recommendations based on contributing factors	\ensuremath{UAV} operators be followed up with by PWCC Aviation Staff regarding their \ensuremath{UAV} "business".
Corrective Action Taken	Crew leader mitigated the risk and asked UAV operators to leave, which they did. RCMP was contacted for follow up with individuals. Media release was issued immediately with pre-determined messaging by Info Officer to address UAV concerns with active fire and relayed that all aircraft will be shut down if UAVs present.
Submitted by;	Leanne Ingham

Provincial Wildfire Coordination Centre Aviation Safety/Air Attack (Cell) 250-851-6188 (Desk) 250-312-3014
 From:
 Benson, Michael FLNR:EX

 To:
 Fisher, Radha FLNR:EX

 Subject:
 FW: UAV on K50615

Date: Tuesday, July 12, 2016 4:27:11 PM

Michael Benson | Superintendent Provincial Airtanker Program BC Wildfire Service | Office: 250-312-3009 | Cell: 250-318-7164

From: Horsman, Gary L FLNR:EX

Sent: Monday, August 17, 2015 11:04 AM

To: Provincial Air Tanker Centre, Forests FLNR:EX; Coutanche, Bruce FLNR:EX; Bardossy, Robert FLNR:EX; Benson, Michael FLNR:EX; Fraser, Rob D FLNR:EX; Hansen, Tom FLNR:EX; Maclean, Alexander B FLNR:EX; Marek, Dave FLNR:EX; McEwen, Cody FLNR:EX; Reinboldt, Thomas R FLNR:EX; Sommerville, Derek A FLNR:EX

Cc: McDonnell, Jeff FLNR:EX; Ingham, Leanne FLNR:EX; Holliday, Brady FLNR:EX; Henry, Murray W

FLNR:EX; Douglas, Ian FLNR:EX; Lund, Shawn K FLNR:EX

Subject: UAV on K50615

Some of you might have heard about our occurrence with a UAV flying over K50615 yesterday. It was spotted by the birddog and all aircraft were immediately grounded. Don't have the exact timeline but approximately 90 minutes after grounding the aircraft the UAV re-appeared. The RCMP did respond to the first appearance of the UAV and did launch their helicopter to the incident. There was a lot of effort in tracking the UAV and trying to find the operators but no luck. We are following up with the RCMP as there were some rumours of a possible 'suspect'.

Here's the issue, in KFC we instituted a policy that all a/c are grounded if a UAV or drone appears on an incident, and I'm assuming all FC's have the same policy. All helicopters landed at Oliver airport and the tanker group returned to YYF. But that raised the question, when and how to reengage? AirBranch 615 and I had discussed after the initial grounding that we would wait 2 hours. But during that time, the UAV came back to the incident. We eventually launched one heli for a slow recce of the fire and then decided to re-engage. This issue is going to happen again and probably with more frequency. I think we need to develop a policy on how to handle these incidents (land all a/c) and when and how to re-engage if the UAV isn't found. Open to suggestions and might be worth an AWG call to discuss. Dave has enlisted Hummingbird for some trials and maybe their input would be helpful. Thx, Gary

Gary Horsman
Senior Protection Officer Aviation
Kamloops Fire Centre
250-554-5533 (W)
250-319-3256 (C)
250-554-5509 (RABCO)

From: Benson, Michael FLNR:EX
To: Fisher, Radha FLNR:EX

Subject: FW: Drones/UAVs - Canada issues?
Date: Tuesday, July 12, 2016 4:26:54 PM

Michael Benson | Superintendent Provincial Airtanker Program BC Wildfire Service | Office: 250-312-3009 | Cell: 250-318-7164

From: Marc Mousseau [mailto:Marc.Mousseau@ciffc.ca]

Sent: Wednesday, August 26, 2015 11:41 AM

To: Benson, Michael FLNR:EX

Cc: Quentin Spila

Subject: RE: Drones/UAVs - Canada issues?

Mike /Quentin,

Are the 2 of you available for a quick call sometime this week or before the end of the month to discuss the drone issue below? There was no other response from any of the other agencies.

Marc

From: Benson, Michael FLNR:EX [mailto:Michael.Benson@gov.bc.ca]

Sent: Tuesday, August 18, 2015 5:33 PM To: 'Quentin Spila'; Marc Mousseau; \$.22

'Eric Earle (eearle@gov.nl.ca)';

s.22

Subject: RE: Drones/UAVs - Canada issues?

Good afternoon all.

I agree with your comments Quentin.

We had another UAV airspace violation this week. We are wrestling with:

- What can we do other than terminate air operations? Can we gain the authority to disable the UAV signal?
- When we terminate operations, how/when do we initiate again? Currently we wait 2 hours send up 1 aircraft to reassess.

Attached is a poster that was developed this week to help inform the public.

Michael Benson | Superintendent Provincial Airtanker Program BC Wildfire Service | Office: 250-312-3009 | Cell: 250-318-7164

From: Quentin Spila [mailto:Quentin.Spila@gov.ab.ca]

Sent: Friday, August 14, 2015 1:11 PM

To: Marc Mousseau; Daniel Normand; s.22

s.22

Subject: RE: Drones/UAVs - Canada issues?

Eric Earle (<u>eearle@gov.nl.ca</u>); s.22 Benson, Michael FLNR:EXs.22 Good day all, I would suggest a collective response versus individual ones.

The question(s) AB has is more so what authority does an agency have when a UAV violates the airspace (NOTAM)? Presently if another aircraft enters the restricted airspace attempts are made to try and contact that aircraft, if that fails the registration is noted and reported to TC. UAV's do not have a registration and there is no way to contact the operator. The Australians, USFS and Cal Fire have taken a rather dramatic approach and publicly advertised that they will pull all aircraft off an incident if a UAV violates the restricted airspace. Cal Fire now has the authority to disable a drone (UAV) in their restricted airspace. Without this authority, all an agency can do to ensure the safety of its aircraft and personnel is pull off the incident. TC needs to be made aware of the consequences of this. Mike has had another experience with this again this year in BC.

Currently AB is working on a messaging campaign to try and educate the UAV operators of the consequences of their possible choices. Once we have something in draft form I will send out to the group.

Thanks Marc!

Quentin Spila (RPFT)

Senior Manager Aviation and Geomatics Wildfire Management Branch Forestry Divison Agriculture and Forestry Phone: (780) 422-4506

Cell: s.22

Fax: (780) 422-7230

E-mail: Quentin.Spila@gov.ab.ca

"Patience is the companion of wisdom"

From: Marc Mousseau [mailto:Marc.Mousseau@ciffc.ca]

Sent: Friday, August 14, 2015 1:28 PM

To: Daniel Normand ;s.22 Eric Earle (eearle@gov.nl.ca);s.22 s.22 ; Mike Benson; Quentin Spila;s.22

Subject: Drones/UAVs - Canada issues?

Discussion has come up regarding Transport Canada and regulations regarding the use of Unmanned Air Vehicles (UAV)s, with comments due to TC by <u>August 28th</u>, <u>2015</u>. Given the several incidents in California this year, and also in BC at the beginning of August, the use of these UAVs will increase, therefore more incidents involving fire management operations are to be expected. There are companies in Canada that offer professional services for UAVs. They operate under a Special Flight Operations Certificate (SFOC) and therefore should have some aviation background/expertise regarding aviation regulations. An issue is the recreational user that is not aware of any regulations. These users appear to be the cause of most of this year's incidents.

This will be an agenda item for this fall AWG meeting, however the deadline for comments to TC is

as noted above.

If you have any comments or concerns please let me know by <u>Aug 22nd, 2015.</u> The entire proposal can be found here:

http://wwwapps.tc.gc.ca/Saf-Sec-Sur/2/NPA-APM/actr.aspx?id=17&aType=1&lang=eng

if you wish to comment directly to Transport Canada, their contact email is:

CARRAC@tc.gc.ca

If you comment directly, please let me know.

Marc Mousseau Aviation and Equipment Coordinator Canadian Interagency Forest Fire Centre Phone - 1-204-784-2030

email: marc.mousseau@ciffc.ca

web: www.ciffc.ca

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From: Safety Working Group
To: Coutanche, Bruce FLNR:EX

Subject: FLNRO Occurence Tracking - Bruce D. Coutanche

Date: Tuesday, August 18, 2015 8:45:18 AM

Safety Working Group

Bruce D. Coutanche has been added

Year: 2015 Occurrence WMB Section: Incident Category: Incident SafeCom Required: No SafeCom Completed: Incompany Date of Occurrence: Incompany When were you advised of the occurrence?: If 6/08/2015 If delay, why?: None, reporting was immediate Location of Occurrence: Penticton Fire Zone Cocurrence: K50615 Description of Occurrence: While over K50615 the birdog was conducting a high level assessment looking for hazards, and in looked to be an orange coloured drone. Arr Operations for the fire man dPATC were notified immediately and all aerial operations were birdog observed it again and it looked to be an orange coloured drone. Arr Operations for the fire and PATC were notified immediately and all aerial operations were birdog observed it again and it looked to be an orange coloured drone. Arr Operations for the fire and PATC were notified immediately and all aerial operations were birdog observed it again and it looked to be an orange coloured drone. Arr Operations for the fire and PATC were notified immediately and all aerial operations were birdog observed it again and it looked to be an orange coloured drone. Arr Operations for the fire and PATC were notified immediately and all aerial operations were birdog observed it again and it looked to be an orange coloured drone. Arr Operations for the fire and PATC were notified immediately and all aerial operations for the fire and PATC were notified imm	Modify my alert settings View Bruce D. Coutanche View FLNRO Occurence Tracking Mobile View				
Section: Occurence Category: SafeCom Required: No Campleted: No Completed: No No Completed: No No Completed: No No Completed: No Completed: No No No Completed: No No No Completed: No No Completed: No	Year:	2015			
Category: SafeCom SafeComequired: No Date of Occurence: 16/08/2015 When were you advised of the occurence?: 16/08/2015 12:20 PM advised of the occurence?: If delay, why?: None, reporting was immediate Location of Occurence: Penticton Fire Zone Fire Number: K50615 Description of Occurence: While over K50615 the birddog was conducting a high level assessment looking for hazards, and objectives, an unidentified object passed under the aircraft, at less than 500°. On a second pass over the fire the birddog observed it again and it looked to be an orange coloured drone. Air Operations for the fire and PATC were notified immediately and all aerial operations were suspended and the airtanker group returned to Penticton. Fire Centre: Airplane Occurence BB number: Airplane Occurence BB number: Airplane Occurence Type: Airplane Ministry Business: Yes Not Ministry Business: Yes Occurence Type: Risk of Collision/Loss of Seperation Fatality: No Occurence Type: Risk of Collision/Loss of Seperation Fatality: No Orcurence Type: Risk of Collision/Loss o		WMB			
Required: SafeCom Completed: Date of Occurence: When were you advised of the occurence? If delay, why?: None, reporting was immediate Location of Occurence: Penticton Fire Zone Occurence: K50615 Description of Occurence: While over K50615 the birddog was conducting a high level assessment looking for hazards, and objectives, an unidentified object passed under the aircraft, at less than 500'. On a second pass over the fire the birddog observed it again and it looked to be an orange coloured drone, and objectives and objectives, and the aircraft was passed under the aircraft, at less than 500'. On a second pass over the fire the birddog observed it again and it looked to be an orange coloured drone, and objectives, and the aircraft was passed under the aircraft, at less than 500'. On a second pass over the fire the birddog observed it again and it looked to be an orange coloured drone, and objectives, and pass over the fire and PATC were notified immediately and all aerial operations were suspended and the aircraft was passed under the aircraft, at less than 500'. On a second pass over the fire the birddog observed it again and it looked to be an orange coloured drone, and passed under the aircraft, at less than 500'. On a second pass over the fire the birddog observed it again and it looked to be an orange coloured drone, and passed under the aircraft, at less than 500'. On a second pass over the fire the birddog observed it again and it looked to be an orange coloured drone, and objectives, an unidentified object passed under the aircraft, at less than 500'. On a second passed under the aircraft, at less than 500'. On a second passed under the aircraft, at less than 500'. On a second passed under the aircraft, at less than 500'. On a second passed under the aircraft, at less than 500'. On a second passed under the aircraft, at less than 500'. On a second passed under the aircraft, at less than 500'. On a second passed under the aircraft, at less than 500'. On a second passed under the aircraft, at less than 50		Incident			
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Occurence: When were you advised of the occurence?: 16/08/2015 12:20 PM advised of the occurence?: If delay, why?: None, reporting was immediate Location of Occurence: Penticton Fire Zone Fire Number: K50615 Description of Occurence: While over K50615 the birddog was conducting a high level assessment looking for hazards, and objectives, an unidentified object passed under the aircraft, at less than 500°, On a second and objectives, an unidentified object passed under the aircraft again and it looked to be an ora 500°. On a second base over the fire the birddog observed it again and it looked to be an ora 500°. On a second varied one, all operations for the fire and PATC were notified immediately and all aerial operations were suspended and the airtanker group returned to Penticton. Fire Centre: Kamloops; PATC Occurence Bh number: Airplane Occurence Bh number: Yes Not Ministry Business: Yes Not Ministry Business. Yes Not Ministry Business. Risk of Collision/Loss of Seperation Age: Occurence Type: Risk of Collision/Loss of Seperation Fatality: No Damage to Aircraft: No Estimated cost of damage: Aircraft Manevering Mission profile: Birdogging		No			
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Phase of Flight: Manoevering Mission profile: Birdogging Aircraft Type: Fixed Wing	damage:				
Mission profile: Birdogging Aircraft Type: Fixed Wing	Serious Injury:	No			
Aircraft Type: Fixed Wing	Phase of Flight:	Manoevering			
	Mission profile:	Birdogging			
Aircraft model: Cessna 208		Fixed Wing			
	Aircraft model:	Cessna 208			

Weather Conditions:	sunny, warm and stable
Contributing Factors: Software:	CARS Regulations were not adhered to by the drone operator.
Contributing Factors: Hardware:	
Contributing Factors: Environment:	
Contributing Factors: Liveware (Pilot):	
Contributing Factors: Liveware (Others):	
Recommendations based on contributing factors:	
Corrective Action Taken:	The RCMP was contacted by the fire centre for follow up with the individual(s) responsible. All aerial operations were suspended until it was deemed safe to once again to continue.
Submitted by;:	Bruce D. Coutanche
Last Modified 18/08/201	5 8:40 AM by Coutanche, Bruce FLNR:EX

From: Horsman, Gary L FLNR:EX

To: Provincial Air Tanker Centre, Forests FLNR:EX; Coutanche, Bruce FLNR:EX; Bardossy, Robert FLNR:EX; Benson,

Michael FLNR:EX; Fraser, Rob D FLNR:EX; Hansen, Tom FLNR:EX; Maclean, Alexander B FLNR:EX; Marek, Dave

FLNR:EX; McEwen, Cody FLNR:EX; Reinboldt, Thomas R FLNR:EX; Sommerville, Derek A FLNR:EX

McDonnell, Jeff FLNR:EX; Ingham, Leanne FLNR:EX; Holliday, Brady FLNR:EX; Henry, Murray W FLNR:EX;

Douglas, Ian FLNR:EX; Lund, Shawn K FLNR:EX

Subject: UAV on K50615

Cc:

Date: Monday, August 17, 2015 11:04:05 AM

Some of you might have heard about our occurrence with a UAV flying over K50615 yesterday. It was spotted by the birddog and all aircraft were immediately grounded. Don't have the exact timeline but approximately 90 minutes after grounding the aircraft the UAV re-appeared. The RCMP did respond to the first appearance of the UAV and did launch their helicopter to the incident. There was a lot of effort in tracking the UAV and trying to find the operators but no luck. We are following up with the RCMP as there were some rumours of a possible 'suspect'. Here's the issue, in KFC we instituted a policy that all a/c are grounded if a UAV or drone appears on an incident, and I'm assuming all FC's have the same policy. All helicopters landed at Oliver airport and the tanker group returned to YYF. But that raised the question, when and how to reengage? AirBranch 615 and I had discussed after the initial grounding that we would wait 2 hours. But during that time, the UAV came back to the incident. We eventually launched one heli for a slow recce of the fire and then decided to re-engage. This issue is going to happen again and probably with more frequency. I think we need to develop a policy on how to handle these incidents (land all a/c) and when and how to re-engage if the UAV isn't found. Open to suggestions and might be worth an AWG call to discuss. Dave has enlisted Hummingbird for some trials and maybe their input would be helpful. Thx, Gary

Gary Horsman
Senior Protection Officer Aviation
Kamloops Fire Centre
250-554-5533 (W)
250-319-3256 (C)
250-554-5509 (RABCO)



Aviation Incident Report

Report all aviation incidents to the fire center

Information			
Date of Incident	16-Aug-15	Time of Incident	1223
Date Incident Reported	August 17, 2015 1500		
Submitted By	Leanne Ingham - Kobau Co	omplex AOBD	
Geographic Location	K50615 Testalinden Creek Fire		
Coordinates			
Air Carrier	n/a		
Aircraft Type	UAV	A/C Registration	unknown
Pilot	unknown		

F.S. passengers

AAO (Derek Sommerville) in BD 129, Air 615 & HLCO 615 (Leanne Ingham and Robyn Canty) in BCH (EC120)

Other passengers

Pilots in various bucketing aircraft. NJJ (Witt Lancaster), OHK (Craig Pedersen), CAN (Don Noltner), TWF (Mike Pawluk)

Weather conditions

Hot, dry, clear, light northerlies

Description of Incident

Air branch and AAO were communicating on victor regarding skimming operations which were about to commence on NW Corner. Air branch was HLCOing rotary wing operations (conducting turn over to incoming HLCO) on East Flank. At 1223, mid-conversation, BD 129 states "I think I see a drone" and less than a minute later confirmed sighting of a LIAV from above. His only description was that it was flourescent.

orange coloured from above. He immediately relayed the information to AOBD. AOBD in turn broadcast over victor to all rotary wing aircraft to depart fire and return to airport immediately as drone was sighted on the fire. All aircraft departed immediately. AOBD confirmed with BD129 that all fixed wing aircraft were also departed fire inbound for Penticton. While inbound to airport AOBD advised Fire Centre of situation and requested RCMP, and contacted all crews and advised to adjust operations accordingly as air support would be unavailable for an estimate of at least a few hours. When landed, AOBD phoned SPO Air and discussed incident and requested advice for re-engaging if drone was not found. AOBD liaised with RCMP officer in Premier's detail and he requested RCMP Air Services to assist. RCMP Air attended 2 hours later (1425) and at 1428 a member of the RCMP ground search group spotted the drone again. A member of SAR also spotted it shortly after. This was relayed to RCMP Air who continued to recce the fire until 1615. They landed and discussed issue with AOBD. AOBD then felt comfortable returning to work. Discussed with RWCO, SPO Air and RABC, briefed pilots and confirmed all were comfortable returning to work. AOBD was airborne at 1700 to recce fire and bucket support operations commenced at 1720. Total time grounded approximately 4 hours.



Injuries to F.S. staff

Aviation Incident Report

Report all aviation incidents to the fire center

mjanos to 1 lo otan				
None				
Injuries to non F.S staff				
None				
Damage to A/C or property				
None, but aviaton operations were suspended for four hours. During this time the fire escaped retardant lines on NW corner and grew approximately 40 hectares. Fire also grew significantly in heavy timber in Testalinden Creek drainage.				
Shell Analysis				
Software	n/a			
Hardware	n/a			
Environment	n/a			
Liveware (others)	Individual flying drone against CARS			



Page 2 of 3



Aviation Incident Report

Report all aviation incidents to the fire center

Suggested Actions

All procedures were followed. RCMP involved and are continuing with investigation. Transport Canada to attend and conduct own investigation according to PACO Sandy McLean.

Actions Taken		Date	16-Aug-15
, ,	RCMP notified and attended with multipl	-	
Rescue (called out by RCMP) and	RCMP Air 4. Communications with SPC) Air regard	ing process for re-
engaging on incident when drone is	s not found. After four hours and thoroug	gh search b	y RCMP, air ops re-
engaged after thorough recces of a	area and pilot briefing confirming all were	e willing to I	return to work. Carried
on work uninterrupted for remainde	er of day.		

Remarks

Ongoing investigation by multiple parties (WMB, RCMP and Transport Canada). Suggest development of guidelines regarding procedures for re-engaging when drone not located.

Signature Person filing report	Leanne Ingham	Date	17-Aug-15
Signature Supervisor or Incident Commander		Date	
Signature Fire Center - Aviation SPO		Date	

Page 3 of 3

 From:
 Ingham, Leanne FLNR:EX

 To:
 Fisher, Radha FLNR:EX

 Subject:
 FW: UAV Event

Date: Friday, July 8, 2016 11:58:37 AM

Attachments: August 16 UAV incident - K50615 - Aviation Incident Report.xlsx

From: Ingham, Leanne FLNR:EX

Sent: Monday, August 17, 2015 3:38 PM

To: Douglas, Ian FLNR:EX Subject: RE: UAV Event

Attached. I have additional notes if needed.

Thanks, Leanne

Leanne Ingham

Air Operations Branch Director Kobau Complex Penticton, BC BC Wildfire Service Cell: (250) 318-3847



From: Douglas, Ian FLNR:EX

Sent: Monday, August 17, 2015 3:34 PM

To: Ingham, Leanne FLNR:EX Cc: Horsman, Gary L FLNR:EX Subject: FW: UAV Event

Hi Leanne

I've been assigned the task as the KFC liaison for the incident so I'm trying get up to speed with it. Gary tells me that you are currently writing a report of the circumstances surrounding the event. Can you please forward your report to me when it completed.

Thanks

From: Horsman, Gary L FLNR:EX

Sent: Monday, August 17, 2015 11:58 AM

To: Maclean, Alexander B FLNR:EX; Douglas, Ian FLNR:EX

Subject: UAV Event

Ian, Murray advised me that you were going to be the RCMP liaison for KFC on the UAV incident on K50615. I just chatted with Sandy MacLean, SPO Aviation NWFC, and he's filling the Prov Aviation Coord position this week. Apparently Transport Canada is eager to follow up on this and he will be filing a CADORS report with them on this incident. Thought you two should meet in case there's some overlap that occurs. Gary

Gary Horsman Senior Protection Officer Aviation Kamloops Fire Centre 250-554-5533 (W) 250-319-3256 (C) 250-554-5509 (RABCO) From: Ingham, Leanne FLNR:EX
To: Fisher, Radha FLNR:EX

Subject: FW: K50615 UAV Incident - Incident Report

Date: Friday, July 8, 2016 11:58:21 AM

Attachments: August 16 UAV incident - K50615 - Aviation Incident Report.xlsx

From: Ingham, Leanne FLNR:EX

Sent: Monday, August 17, 2015 3:18 PM

To: McDonnell, Jeff FLNR:EX; Horsman, Gary L FLNR:EX; BCWS, Aviation KAM FLNR:EX; Maclean,

Alexander B FLNR:EX

Cc: Salewski, John W FLNR:EX

Subject: K50615 UAV Incident - Incident Report

Good afternoon.

Attached is the incident report for K50615. I do have additional notes for investigation if required.

Leanne

Leanne Ingham

Air Operations Branch Director Kobau Complex Penticton, BC BC Wildfire Service

Cell: (250) 318-3847

