

A Review of Helicopter Accidents / Incidents - Occurrence Time of Day

During the meetings of the Flightcrew Fatigue Management Working Group, the appropriateness of the current 14-hour flight duty day limitation has been discussed along with the idea of introducing a weekly duty hour limitation. The suggestion has been made that successive 14-hour days over the course of several weeks is appropriate, provided that the flightcrew member obtains 8 hours of sleep each night.

I thought it would be worthwhile to do a search of the Civil Aviation Daily Occurrence Reporting System (CADORS) to determine the time of day that helicopter accidents and incidents were occurring. I wanted to determine if there were any trends.

The following criteria were used in the search:

Date range: from January 13, 2006 to January 13, 2011 in one year increments; aircraft category: helicopter; event(s): accident - crash, aircraft incident - minor damage, collision - midair, collision on ground, collision with object, collision with terrain, forced landing, hard landing, loss of control - inflight, loss of control - on ground, nose over, overturn, propeller/rotor strike, roll over, and wire strikes.

From the results, the narratives for each incident were reviewed and all military and privately registered helicopters were eliminated, as were training flights and all mechanical failure type incidents - engine failures, fuel problems, etc... This resulted in a list of accidents / incidents that appear to involve either pilot decision-making or pilot performance. The type of poor performance decision making that a fatigued pilot might exhibit.

The UTC time of the accident / incident was then translated into local time. And then accidents / incidents were tabulated as either occurring before or after noon.

Results

Over the 5 year period that was reviewed, for each accident / incident that occurred before noon, two occurred after noon.

Year	Total Events	Local Time of Event	
		AM 00:00 to 11:59	PM 12:00 to 23:59
2010	31	8	23
2009	15	5	10
2008	23	7	16
2007	28*	10	17
2006	38*	13	24
Totals	135	43	90

Conclusion

I had expected a more or less even distribution of events across the day, so I was surprised with the 1:2 ratio of AM to PM. I am not a statistician, so I do not know what conclusions if any can be drawn from these results.

The question I am left with is why do twice as many accidents and incidents occur in the afternoon?

Mark Laurence

Inspector
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18 January 2011

* For 2007 there was 1 event that the time of day was not reported.

* For 2006 there was 1 event that the time of day was not reported.

2010

2010C0585 2010-02-02 23:00 (-8, **15:00**, W) Day-time Incident 0 0
CYMAMayo Mayo (CYMA) 45 NM N Yukon CANADA

The Trans North Helicopters Bell 206B, registration C-GMYQ, was landing in a confined area to pick up line cutters. During the approach to the landing area the tail rotor struck a small spruce tree. Control was maintained and the landing was accomplished without further incident. Visual examination identified a nick on one of the tail rotor blades. Examination and repair will be carried out in accordance with Bell Helicopter maintenance requirements following a tail rotor strike.

2010C0753 2010-03-07 18:30 (-7, **11:30**, W) Day-time Accident 0 0
10 NM N of Hythe Alberta CANADA

The Bi-Air Application Services Hiller UH-12E, registration C-FTHT, was conducting tree cone harvesting near Hythe, AB when on an approach the tail rotor struck branches. An attempt was made to pull up, however this led to an over torque condition and the helicopter fell to the ground in forested terrain. The pilot was the lone occupant and was not injured.

2010C1350 2010-04-17 00:35 (-7, **17:35**, S) Day-time Accident 0 0
CYQHWatson Lake 53 NM W of Watson Lake (CYQH) Yukon CANADA

A Trinity Helicopters Bell 206LR, C-FVIX, was on a re-positioning flight from Yellowknife, NT to Whitehorse, YT. After departure from Watson Lake, NT, the aircraft was crossing a ridge at approximately 5,000 feet asl when a decision was made to land on top of a mountain. After determining the wind direction, the pilot approached the landing area into the wind. On short final the helicopter entered an unanticipated yaw to the right. The aircraft landed hard and rolled onto its left side. The aircraft sustained substantial damage. The pilot and two passengers were not injured.

2010C1529 2010-05-13 16:50 (-7, **09:50**, S) Day-time Accident 0 0
CYDADawson City Dawson City (CYDA) Yukon CANADA

The Trans North Helicopters Astar AS 350-B2, C-GTNV, was transporting a 5 man line crew to a job about 50 miles south of Dawson City, YT. Just prior to touchdown in a mountain saddle, a high rate of descent developed, resulting in a hard landing. There were no injuries to the pilot and passengers, but the helicopter had a collapsed RH skid, and damage to the tail rotor and tail boom.

2010C1586 2010-05-21 15:30 (-6, **09:30**, S) Day-time Incident 0 0
Keep Hills Alberta CANADA

The Great Slave Helicopters Hughes 369D helicopter, registration C-GVZD, was engaged in a power line patrol and had landed at Keep Hills power station to refuel. After shutdown the helicopter was restarted and repositioned to a spot that was more suitable for the fuelling truck to access. Between the first and second landings the winds had increased to 20 knots, gusting to 30 knots, and for the second landing the helicopter was parked with the winds at the 3:30 to 4:00 position. After shutdown, as the blades were slowing down, the pilot exited the cockpit. Moments later the blades started to flap and one blade struck the top of the tail boom. The tail boom sustained minor damage. There were no injuries.

2010C2169 2010-07-05 19:58 (-6, **13:58**, S) Day-time Accident 0 1
CJK4 Esterhazy 11 NM SW of Esterhazy (CJK4) Saskatchewan

TSB reported that the Sunrise Helicopters, Bell 206B, C-GNBS was engaged in Pro-line fungicide application, when the main rotor mast of the helicopter contacted an overhead wire and control was lost. The aircraft impacted the ground in a nose-low attitude on the left side. The pilot received minor hand injuries and exited the aircraft. There was no post-crash fire. There was a release of chemical during the crash. No mechanical problems were evident prior to contact with the wire. The ELT was triggered during the crash and the pilot turned it off once help arrived. The seat belt and shoulder harness were in use and the pilot was wearing a helmet as mandated by company policy. The aircraft was destroyed. RCMP secured the site which was handed over to the operator's ground crew once the aircraft was released to the owner.

2010C2248 2010-07-07 17:35 (-6, **11:35**, S) Day-time Incident 0 0
CYLB Lac La Biche 21 NM NE of Lac La Biche (CYLB) Alberta

The Great Slave Helicopters MD369 helicopter, registration C-FGHT, was being utilized for live wire water spraying (power washing) of insulators on a high voltage transmission line when the main rotor made contact with a wire at approximately 150 feet above ground. A precautionary landing was carried out immediately, with no structural damage to the helicopter and no injuries to the two occupants. Scuff marks were observed on the main rotor blades during initial visual examination of the rotor system, indicating minor damage. The helicopter will be trucked off the site and examined in accordance with a rotor system sudden stoppage inspection before being returned to service.

2010C2365 2010-07-08 18:30 (-6, **12:30**, S) Day-time Incident 0
Mirror Lake Alberta

The Alpine Helicopters Ltd Bell 407, C-FNOB, was lowering a long-line sling load of timbers at the edge of Mirror Lake, AB, near Lake Louise, when one of the main rotor blades struck a 3 inch diameter tree. Aircraft controllability was not affected, and the helicopter returned to the staging area one kilometer away. A minor delamination was detected on one blade. The helicopter was transported to the company's maintenance base at Canmore where a sudden-stoppage inspection was carried out. The damaged blade will be overhauled at the manufacturer's facility.

2010C2433 2010-07-15 04:30 (-6, **22:30**, S) Day-time Accident 0 0
50 NM N of Wabasca Alberta

The Ultra Helicopters Ltd. AS 350BA helicopter, C-FXMJ, landed in a clearing about 10 NM northeast of Wabasca, AB to pick up a fire crew. After liftoff and acceleration through 30 knots, a main rotor vibration was detected, and the aircraft was landed in a clearing about 800 meters away. The main rotor blades had sustained damage in the trim tab area, likely from contact with a tree. The helicopter was grounded on-site, and due to fading daylight, the pilot and four passengers were extracted the next day.

2010C2823 2010-08-16 20:30 (-4, **16:30**, S) Day-time Accident 1 0
CYCY Clyde River 28 NW of Clyde River (CYCY) at 7049.06N/07009.71W
Nunavut

RCC Trenton reported that the debris field extended almost 5 miles and based on the condition of the wreckage, the impact of the helicopter in the water was severe. The pieces recovered by the coast guard have been deposited in Clyde River. The next of kin of the pilot were briefed and the search has been terminated.

2010C3060 2010-08-31 20:15 (-6, **14:15**, S) Day-time Accident 0 0
CYMM Fort McMurray 66 NM NW of Fort McMurray (CYMM)
Alberta

The Kananaskis Mountain Helicopters Ltd. Aerospatiale AS350 BA, C-GIYO, was dropping off two surveyors in the Namur Lake area. The landing site was in a confined area. The initial touchdown was successful; however, the pilot repositioned the helicopter a short distance to facilitate an easier exit for the surveyors. During this manoeuvring the main rotor blades contacted a 2 inch diameter sapling which resulted in major damage to all three blades.

2010C3421 2010-09-30 20:00 (-6, **14:00**, S) Day-time Accident 0 0
CEN6 Vauxhall Vauxhall (CEN6) Alberta

The Black Hawk Helicopters Inc. Robinson R44 II, registered as C-FMHG, had turned down wind in low level flight at Vauxhall, AB when the aircraft began to settle. The pilot tried some escape manoeuvres but they failed and the helicopter settled, resulting in a hard landing. There were no injuries to the pilot or 2 passengers. The landing gear was damaged and is being inspected by company AME's and a Transport Canada Inspector.

2010C3830 2010-11-03 21:00 (-7, **14:00**, W) Day-time Incident 0 0
20 NM N of Peers Alberta

The pilot of a Rotorworks Robinson R44 had been inspecting power lines with a client on board near Peers, AB. During a re-positioning flight to start another section, the helicopter struck a small power line across a road. The line broke and the pilot noted the

bump. The helicopter was landed to investigate the cause of the bump and some damage to the mast fairing was noted. The operator is having the damage repaired and has initiated meetings with all pilots to discuss procedures.

2010C4177 2010-12-08 19:10 (-5, **14:10**, W) Day-time Accident 0 0
CYFO Flin Flon 15 NM SW of Flin Flon (CYFO) Manitoba

The Custom Helicopters Ltd. Bell 206L-1, registration C-GCHI, was departing a portable landing pad at a remote drilling site after refuelling near Flin Flon, MB. The right skid became entangled in one of the pad's slinging cables as the helicopter lifted off. The helicopter rolled over and was substantially damaged. The solo pilot was not injured.

2010O0980 2010-04-19 17:50 (-4, **13:50**, S) Day-time Accident 0 0
CYOOOshawa 12 NM east of Oshawa (CYOO) Ontario

C-GOHY, an Aerospatiale AS350 B2 helicopter, was performing a line patrol near Pickering when the main rotor blades made contact with the lightning shield wire on a hydro electric transmission tower line resulting in damage to all 3 main rotor blades. The helicopter landed safely and the rotor blades and associated components were removed and sent for inspection.

2010O1834 2010-07-23 17:00 (-4, **13:00**, S) Day-time Accident 2 0
6 nm southwest of Elk Lake Ontario

Crash C-GCHB (473845N 0802517W - 7 SW of Elk Lake). OPP received a report of a helicopter flying low overhead, then they heard a crash. OPP Helicopter C-FOPS responded. The Griffon was tasked, but stood down when OPP and ambulance arrived on scene and confirmed that the aircraft was C-GCHB and that the two souls on board were deceased. C-GCHB was on a flight from North Bay to Kapuskasing. Contact info for the company was relayed to the police and the case turned over to the OPP. No further action required. Case closed.

The 1791559 Ontario Inc. - Essential Helicopters Bell Textron 206B aircraft (C-GCHB) was on a VFR flight from North Bay (Jack Garland) Airport (CYYB) to Kapuskasing Airport (CYYU). Berry pickers reported seeing and hearing a helicopter crash in the woods near New Liskeard, Ontario. An investigation revealed that C-GCHB had crashed into a fire tower and then to the ground. Two (2) T.S.B. Investigators went to the scene and reported that the helicopter was destroyed. There was no post-crash fire. The Class of Investigation is being assessed.

2010O2035 2010-07-31 21:00 (-4, **17:00**, S) Day-time Incident 0 0
Big Trout Lake, Algonquin Park Ontario

The Silverline Helicopters Inc. Eurocopter France EC-130-B4 aircraft (C-FIRD) was hovering in a confined area. The main rotor blade contacted some small tree branches resulting in minor damage to the rotor blade tips but no adverse flying qualities.

2010P0334 2010-03-22 23:30 (-8, **15:30**, W) Day-time Accident 0
1 20 M West of White Saddle Ranch, Vicinity of Alexis Creek
British Columbia

At 0130Z the Alexis Creek RCMP advised of a helicopter crash. Subsequently, information received from the Rescue Coordination Centre revealed that the Skyline Helicopters Bell B212 (C-GSLZ), VFR origin/destination unknown, had crashed 20 miles west of White Saddle Ranch. There were 11 souls on board with 1 injured.

The Skyline Helicopters Bell 212 helicopter (C-GSLZ) reportedly encountered white-out conditions while engaged in heliskiing operations and attempting to land in mountainous terrain to drop off skiers. The pilot sustained minor injuries. The ten passengers were not injured.

2010P0822 2010-06-25 20:30 (-7, **13:30**, S) Day-time Accident 0 0
1.6 NM N of Aldergrove (4479 Bradner Rd, Langley Township) British
Columbia

The Hunter Helicopters Hughes 369HS (500C) helicopter (C-FJJO) was conducting spraying operations 1.6 nm north of Aldergrove when the helicopter struck a greenhouse. The skids were torn off the helicopter and the engine was overstressed during the pilot's recovery attempt. The pilot was able to retain control of the helicopter and remained airborne while his ground crew fashioned an improvised landing platform of wood. The pilot then landed the helicopter without further event. The pilot was not injured but the helicopter was substantially damaged.

2010P0893 2010-06-21 01:00 (-7, **18:00**, S) Day-time Incident 0 0
100 NM South of Fort Nelson-Forestry (CFW7) British Columbia

A CC Helicopters Bell 212 (C-GTRH) with 6 firefighters and 1 pilot was attempting to land near a fire when the main rotor blades contacted trees. The aircraft was flown 3 miles to a suitable landing site where it was shut down without further occurrence. There were no injuries. The helicopter received minor damage.

2010P0948 2010-07-13 17:00 (-7, **10:00**, S) Day-time Accident 0 1
Agassiz, BC (East Side of Stave Lake) British Columbia

The Highland Helicopters Ltd. Bell 206B (C-GMDQ), VFR origin/destination unknown, while conducting Forest Management work east of Stave Lake, BC incurred an accident. The pilot was the sole occupant and was reported to have escaped without injury. The aircraft was substantially damaged. A company helicopter was en route to the scene to recover the pilot and Forestry personnel.

- A Highland Helicopters Bell 206B (C-GMDQ) was working on the East side of Stave Lake positioning forest management personnel. While attempting to take-off with just

the pilot on board, a bear paw snagged under a rock. The aircraft rolled onto its right hand side and sustained substantial damage. The pilot was taken to hospital with minor injuries.

2010P1192 2010-08-02 22:30 (-7, **15:30**, S) Day-time Incident 0 0
25 NM North of Mcbride BC British Columbia

The Yellowhead Helicopters Bell 407 helicopter (C-FYHY) was engaged in fire-fighting operations 25 NM north of Mcbride, and was on approach to a landing on a road to deliver some supplies. As the helicopter hovered and settled a fine dust was blown up from the road, the pilot lost visual reference and drifted to his 8 o'clock position. He heard a thump and assuming a blade strike, he aborted the landing and proceeded to a pad one kilometer distant. A post flight inspection found blade delamination and other evidence of main rotor damage. The main rotor and mast were removed and sent for examination by the manufacturer. The pilot was not injured.

2010P1210 2010-08-18 19:30 (-7, **12:30**, S) Day-time Accident 0 0
Bishoff Lake, BC British Columbia

406 Lakehead Helicopters C-FMAD (513390N 1190230W - 33 NM Southeast of Blue River). 406 beacon belonging to Lakehead Helicopters was heard. The Operations Manager was contacted. The helo had crashed, all persons on board were okay, and the aircraft was in satellite phone contact. Company arranging for another helo to extract them. Case ongoing.

The Lakehead Helicopters' Bell 206B helicopter (C-FMAD) was inbound to Bischoff Lake with 2 passengers. The pilot chose a landing area on the south west side of the lake about 200 ft from the shore. Bischoff Lake's elevation is 6,500 ft asl and the ambient temperature was 25 degrees Celsius. As the aircraft approached the selected landing area the pilot judged the aircraft was too fast. The landing was rejected and a go-around was initiated. Power was increased to climb but the helicopter began to descend although torque was at 100%. The pilot pulled up on the collective but the helicopter continued to descend and began to yaw to the right. The helicopter continued to descend and rotate faster; the low rotor RPM horn sounded. Rotor RPM was at 90%. The pilot steered the helicopter to an area that was largely free of rocks. The helicopter hit the ground and rolled over to the right. The pilot turned off the fuel and battery, and assisted the passengers to evacuate. The helicopter was substantially damaged; there were no injuries.

2010P1907 2010-12-15 19:00 (-8, **11:00**, W) Day-time Accident 0 2
8NM South East of Blue River (CYCP) British Columbia

VIH Helicopters Bell 407 (C-GNVI), VFR Blue River to Blue River. The Bell 407 helicopter, operated by Vancouver Island Helicopters for Mike Wigley Heliskiing, was on short final to drop off heliskiers 8 nm SE of Blue River, BC when the engine lost power.

The helicopter landed hard and the main rotor blades struck the vertical fins on the horizontal stabilizer. The pilot and ski guide (seated in the front left) sustained back injuries but the five passengers were uninjured.

2010P1955 2010-12-28 21:00 (-8, **13:00**, W) Day-time Accident 0 0
20NM N of Revelstoke British Columbia

During landing at a refueling site, the Mustang Helicopters Bell 205A 1 (C-GFRE), pilot lost visual reference in blowing snow and the main rotor blades struck a refueling tank. The helicopter was substantially damaged, but the pilot was not injured. No fire started from the collision.

2010Q1097 2010-06-05 00:00 (-4, **20:00**, S) Day-time Accident 0 0
Lac Duval, à 85NM au nord-ouest de Gatineau (CYND) Quebec

C-GBTE, an R-44 operated by Entreprise Helibenny, was involved an accident on Lac Dorval, located 85 NM northwest of Gatineau (CYND). At approximately 2400Z, the pilot informed the Montréal (CYUL) area control centre (ACC) controller that the two people on board the aircraft did not require assistance. The aircraft seems to be a total loss.

The private Robinson R44 helicopter, registration C-GBTE, was landing in an area next to a cottage on Lac Duval, Qc. The grass-covered terrain at the landing spot was uneven. Upon touching down, the pilot put collective down abruptly and sensed the helicopter wanted to tilt backward. The pilot corrected abruptly with cyclic forward and collective up and the helicopter lifted and tilted forward, striking the main rotor on the ground. The pilot and passenger were not injured. The aircraft was substantially damaged.

2010Q1561 2010-07-21 21:05 (-4, **17:05**, S) Day-time Incident 0 0
CYHR Chevery 1NM au nord-est de Chevery (CYHR) Quebec

C-GCHW, a Messerschmitt-Bölkow-Blohm Bo 105 operated by Transport Canada, was VFR from Lourdes de Blanc Sablon (CYBX) to Chevery (CYHR) with a pilot and three passengers aboard. The pilot noticed a wire in front of the helicopter just before touching down. To bring the helicopter to a stop, the pilot nosed up sharply, and the tail rotor guard touched the ground. No one noticed the contact with the ground and the rotor continued to function normally. However because there was mud covering the whole of the tail rotor, the transmission and the rotor were replaced as a precaution.

2010Q1805 2010-08-17 15:59 (-4, **11:59**, S) Day-time Accident 4 0
22NM au nord de Sept-Îles (CYZV) (503452N/0660509W) Quebec

The Eurocopter Astar AS350BA, registered C-GIYR, operated by Héli-Excel, was on a VFR flight from Sept-Îles (CYZV) to Poste Montagnais, which is located approximately 100 NM north of Sept-Îles. Fifty minutes after takeoff, the Web flight tracking system indicated that the aircraft was 22 NM north of Sept-Îles, but was no longer moving.

Searches were initiated and the wreckage was found on a plateau. There was no fire, but the aircraft was destroyed by the shock of the impact. The pilot and the three passengers perished.

C-GIYR, an Astar 350 operated by Héli-Excel, was on a VFR flight to Poste Montagnais with its pilot and three passengers on board. The aircraft crashed 21 NM northeast of Sept-Îles (CYZV). The four aircraft occupants were killed during the crash. Two Transportation Safety Board of Canada (TSB) investigators were sent to the scene.

2010Q1941 2010-09-01 20:10 (-4, **16:10**, S) Day-time Accident 0 4
CYMT Chibougamau/Chapais À 12 NM au nord de Chibougamau/Chapais
(CYMT) Quebec

The AS350 B2 helicopter, registration C-GHVD, was on approach to a gravel road to wait out weather when the aircraft experienced a sudden downdraft pushing it into trees approximately 50 ft from the edge of the road. The aircraft was destroyed. The pilot sustained serious injuries. The three passengers sustained minor injuries. Two TSB investigators deployed to the site.

2010Q2688 2010-12-16 14:05 (-5, **09:05**, W) Day-time Accident 0 0
Hydro-Québec à Chicoutimi Quebec

C-GSRQ, un Astar 350 exploité par Héli/Express, effectuait un vol depuis la base d'Hydro-Québec à Chibougamau à destination de la base d'Hydro-Québec à Chicoutimi. Lors de l'atterrissage, le rotor de queue a frappé un banc de neige. L'appareil a subi des dommages au rotor de queue et à la poutre de queue. Le pilote, seul à bord, n'a pas été blessé. Le Bureau de la sécurité des transports (BST) a été avisé.

2011P0022 2011-01-04 23:37 (-8, **15:37**, W) Day-time Accident 0 1
CZBB Boundary Bay Airport Boundary Bay Airport (CZBB) British
Columbia

Tower received a report that CHC Global Operations Eurocopter France AS 332L1, Boundary Bay to Boundary Bay flipped upside down at the Heli 1 apron at Boundary bay airport. 911 and emergency response crews were contacted by the tower. The accident occurred during run-up procedures. The aircraft sustained substantial damage. The pilot did not suffer significant injuries.

The CHC Global Operations Aerospatiale AS332L1 helicopter, C-GGKX, was undergoing ground runs for tail rotor balancing adjustments at Boundary Bay, after maintenance. A pilot was operating the helicopter, seated in the right seat, accompanied by 3 engineers, one at the left front next to the GPU, one at the right front outside the rotor disc, and one operating the balancing equipment at the rear. The no. 1 engine was started and moved to 97%, rotors turning. As the no. 2 engine was started the helicopter began to rise off its right wheel and tilt to the left. It was assumed there

was a flat tire, but confirmed not to be so. The pilot ensured the collective was down but the helicopter continued to roll to the left. Both engines were shut switched off and the 3 engineers exited the immediate area. The pilot released himself from his harness, switched off electrical power and exited the helicopter from the right rear cabin door. The pilot sustained minor injuries. There was no fire but the helicopter was substantially damaged.

2009:

15 total - 5 AM, 10 PM

2009A0416 2009-06-04 22:45 (-2.5, **20:15**, S) Day-time Cornell Cove (4747N 5547W) Newfoundland and Labrador

The pilot of C-FYNP, a Quinlan Brothers Bell 206L helicopter with three passengers on board on a sightseeing flight, was landing beside a cabin when the tail rotor struck a tree. The aircraft landed hard and came to rest with the tail boom and main rotor blades detached. All four occupants received serious injuries. They were transported via SAR helicopter to the Health Science Center in St. John's NL where their injuries are considered non-life threatening.

2009C2101 2009-08-04 22:30 (-7, **15:30**, S) Day-time 20 NM SW of Nahanni Butte (CET8) Northwest Territories

UPDATE TSB reported that the Robinson R44 II, C-GNYT, operated by Wild Water Heli-Fishing Ltd., was attempting to land on a narrow ridge in steep mountainous terrain with a pilot and two passengers on board. Before touchdown, the helicopter turned and began a descent down the steep slope in the direction it had approached. The tail boom struck the ground, and the helicopter tumbled down the mountain side, coming to rest about 900 feet from the top of the ridge. A post impact fire erupted which destroyed the helicopter. One occupant survived with serious injuries, and two sustained fatal injuries.

C-GNYT, a Robinson R44 owned by Wild Water Heli-Fishing and operated by Nahanni Outfitters, was landing on a small pad adjacent to a steep slope when the helicopter tumbled down the slope and caught fire. The two passengers are deceased, and the pilot suffered serious injuries. The RCMP and multiple local resources responded including several helicopters. Reports indicate that extraction of the survivor will be difficult due to the proximity of the closest landing pad and a steep slope. A SAR C-130 Hercules from Winnipeg was also tasked. TSB Edmonton may send investigators to the site.

2009C2161 2009-08-10 00:30 (-6, **18:30**, S) Day-time Ram River Alberta

C-GZPM, a Bell 206 operated by Kananaskis Helicopters, landed at Ram River near Rocky Mountain House to pick up two passengers and after the pilot shut down, the

helicopter tilted backwards when the rocks below the right gear shifted. The helicopter came to rest on the stinger and the tail rotor contacted rocks. There were no injuries and the extent of any damage is not known.

TSB reported that the Kananaskis Mountain Helicopters Ltd. Bell 206B, C-GZPM, had set down on the shore of the Ram River to pick up passengers. The pilot had shut down the helicopter and when he exited the aircraft to load the passengers, a rock from under the rear right bear paw shifted resulting in the helicopter tilting backwards and resting on the stinger. During the event, both tail rotor tips contacted the rocks.

2009P0105 2009-01-28 18:00 (-8, **10:00**, W) Day-time Blue River (CYCP) British Columbia

The Vancouver Island Helicopters Aerospatiale AS350 (C-FTDE), while landing at Blue River (CYCP), hit a tree damaging the rotor blade and transmission. There were no injuries. The helicopter was involved with commercial heli-skiing operations prior to the accident.

The Vancouver Island Helicopters AS 350B-2 helicopter (C-FTDE), was engaged in heli-skiing operations in the Blue River, BC area. On the approach to a landing zone the pilot overshot the landing zone and the rotor contacted a tree, causing damage to all three blades and to the transmission. The helicopter subsequently landed at the zone without further event. There were no injuries to the pilot or five passengers.

2009P0342 2009-03-25 22:22 (-8, **14:22**, W) Day-time Toba Valley
(50.37.10N 123.57.94W) British Columbia

The Oceanview Helicopters Hughes MD600N, origin/destination unknown, experienced impact and roll over upon landing near Toba Inlet, BC (50.37.10N 123.57.94W). It was reported that white out conditions may have existed at the time. The 3 souls on board escaped injury.

Oceanview Helicopters reported an overdue MD600 helicopter in the Toba Valley area with 3 persons on board. The CF Buffalo and Cormorant were tasked but stood down when the second company helicopter located the missing helicopter with all 3 persons extracted with no injuries. The helicopter had impacted and rolled over, possibly due to whiteout or snow conditions.

The Oceanview Helicopters MD600N helicopter (C-GOHN) was engaged in avalanche control operations in the Toba Valley. The centre door on the left side of the helicopter had been removed to allow the blaster to drop explosives on to the slope. While hovering, immediately after dropping explosives on to the mountainside at 7000 feet ASL, a gust of wind in conjunction with rotor downwash and fresh snow caused whiteout conditions and forced the helicopter uphill into the slope. The main rotor blades struck the mountainside and the helicopter slid down about 400 feet. The helicopter was destroyed, the pilot received minor injuries and the two passengers were uninjured.

2009P0395 2009-04-05 01:30 (-7, **18:30**, S) Day-time 4 NM East of Nelson
British Columbia

The High Terrain Helicopters AStar 350 B-2 helicopter (C-GVIN) left Nelson to pick up an injured skier at a clearing about 4 NM East of Nelson, at an elevation of about 7,000 feet asl. While on final approach to the clearing, just before touchdown, the helicopter's main rotor blades contacted a tree. The pilot abandoned the landing attempt, proceeded to another nearby clearing and landed. Upon inspection it was determined that all 3 main rotor blade tips had sustained damage. There were no injuries to the pilot and 3 passengers.

2009P0661 2009-05-21 15:30 (-7, **08:30**, S) Day-time 20 NM Northeast of
Kitimat, BC British Columbia

The pilot of the Canadian Helicopters AS-350B2 helicopter (C-FPLJ) was landing on a snow-covered surface 20 NM Northeast of Kitimat and lost visual reference. A landing skid dug into the snow and the helicopter rolled over. There were no injuries to the four occupants and the helicopter was substantially damaged.

2009P1095 2009-07-30 22:20 (-7, **15:20**, S) Day-time 5246.5N 12033.97W
(approximately 65 NM NE of Williams Lake) British Columbia

At approximately 23:45Z, Kamloops FIC received a report from the Caribou Fire Centre that CGVIJ, a Vancouver Island Helicopters Bell 205A Helicopter had crashed into a lake while picking up water for fire suppression. Pilot received minor injuries and was transported to Williams Lake for medical treatment. Helicopter is partially submerged so extent of damage unknown.

A Bell 205A-1 (C-GVIJ) operated by Vancouver Island Helicopters, was conducting water bucketing operations for forest fire suppression. The aircraft ditched in a lake and sank. The pilot (sole person on board) evacuated the aircraft with minor injuries. The level of damage to the helicopter is unknown.

2009P1222 2009-08-14 22:09 (-7, **15:09**, S) Day-time Fraser River, N50.26.008
W121.41.470 British Columbia

BC Forestry Department reported that one of their helicopters was down in the Fraser River approximately 20NM south of Lillooet, BC (CAR3).

TSB reports that a Bell 212 helicopter with one soul on board has crashed near Lillooet BC at approximately 15:09 PDT. TSB indicated the helicopter was conducting water bucketing in support of forest fire operations when a witness observed it crash into the river. Lytton RCMP are conducting a search for the Pilot.

The deceased pilot was found several days after the accident down river and the aircraft remains unrecovered in the river near the point of impact.

2009P1650 2009-10-16 19:37 (-8, **11:37**, W) Day-time Manuel Canyon, BC
British Columbia

The Finnair Eurocopter EC-130B helicopter (C-GMVR) was performing power line sock line stringing operations in Manuel Canyon when the main rotor struck a steel tower. The pilot immediately flew away to the west of the power line and when clear of all ground crew operated the emergency mechanical hook release. He then made a precautionary landing on a nearby road. The helicopter sustained substantial damage. The pilot was not injured.

2009Q1255 2009-06-25 16:30 (-7, **09:30**, S) Day-time Nemiscau (CYHH)
Quebec

Eurocopter AS350D, registered C-FCCI and operated by Héli Express, was on approach for landing when the pilot manoeuvred to avoid impact with birds. The tail rotor came into contact with tree branches. The aircraft touched down normally. The aircraft was inspected, and only the tail rotor needed replacement.

2009Q1376 2009-07-15 20:30 (-4, **16:30**, S) Day-time À 15NM au sud-ouest de
Nemiscau (CYHH) Quebec

Whapchiwem Helicopters Aerospatale AS350 C GLMH crashed in the vicinity of Nemiscau near James Bay, when the aircraft touched wires with the tail rotor. It would seem that there were no injuries.

Eurocopter 350BA registration C-GLMH, operated by Whapchiwem Helicopter Limited for Canadian Helicopter, took off from pylon 648 bound for Nemiscau. On take off, the main rotor and the tail rotor struck a pylon guy line. The aircraft started turning to the right and tipped forward. The aircraft came to a stop on the right side almost in an inverted position. The pilot and passenger incurred minor injuries.

2009Q1394 2009-07-17 18:34 (-4, **14:34**, S) Day-time Kangiqsujaq (Wakeham
Bay) (CYKG) Quebec

Bell 206 GHLK was on a VFR flight from Kuujjuaq (CYVP) to Coral Harbour (CYZS). At 1813Z, ARCTIC radio contacted the operating company and requested the status of the flight. An official from the company then advised that the aircraft had not arrived at the supply point at Kangiqsujaq (CYKG) and the Trenton Rescue Coordination Centre (TR RCC) had been notified. A search is underway.

The aircraft was located at 1700Z on July 23 at coordinates 610764N/0710822W. Its two occupants were deceased.

2009Q2343 2009-11-12 19:29 (-5, **14:29**, W) Day-time Rivière Franquelin
Quebec

The Robinson R44 II helicopter registered C-GJMP with the pilot and two passengers on board was conducting a visual flight rules (VFR) flight from Baie-Comeau/Héli-Manicouagan (CSN9) to Baie-Trinité. At approximately 1929Z, the aircraft crashed in the rivière Franquelin, east of Baie-Comeau. The aircraft was substantially damaged. The pilot was fatally injured, and the two passengers were transported to hospital with serious injuries. Two Transportation Safety Board of Canada (TSB) investigators were sent to the accident site. The TSB class of investigation is currently being evaluated.

2010P0016 2010-01-05 18:15 (-8, **10:15**, W) Day-time 20 NM South of
Golden, BC British Columbia

The Transportation Safety Board reported that an Alpine Helicopters Bell B206 L1 (C-FALC) suffered a blade strike while conducting heli-ski operations after encountering white-out conditions at Bobby Burns Lodge, approximately 20 miles south of Golden, BC. The incident occurred at approximately 09:30 PDT on January 5, 2010. The pilot and two passengers are reported to be uninjured. The extent of the damage to the helicopter is unknown.

The Alpine Helicopters Bell 206L-1 helicopter (C-FALC) was engaged in heli-skiing operations in the Bobbie Burns area. While approaching a landing area at Roller Coaster Run, the helicopter was suddenly engulfed in whiteout, the main rotor blades contacted the ground, and the helicopter was substantially damaged. The pilot and one passenger sustained minor injuries, one passenger was uninjured. There was no fire. (Occurrence upgraded to an accident)

2008:

23 total - 7 AM, 16 PM

2008C0397 2008-02-01 16:00 (-7, **09:00**, W) Day-time Empress (CYEA)
20 NM S Alberta

The Bighorn Helicopters Inc. Hughes 369D was conducting a wildlife survey approximately 20 nm south of Empress, AB. During touchdown, the tail rotor struck the ground resulting in a loss of rotational control. The pilot reduced the collective immediately and the helicopter landed heavily but remained upright. There was substantial damage to the tail rotor, tail rotor drive train, tail boom, and skid gear. The pilot and observer were uninjured.

2008C1608 2008-05-24 21:14 (-6, **15:14**, S) Day-time Doctor Lake Northwest
Territories

Helicopter crashed at Kelly Lake east of Norman Wells. There was a post impact fire and the passenger was fatally injured. The pilot was taken to hospital with burns. RCMP responded. TSB will be on site. System Safety has appointed a Minister's Observer.

A Hughes 369D (500D) helicopter operated by Sahtu Helicopters was moving personnel near Doctor Lake, NT when the aircraft started an uncontrollable rotation and crashed. A post-crash fire followed. There was one passenger fatality, and the pilot, who sustained serious injuries, was pulled from the wreckage by another passenger who sustained minor injuries.

2008C2162 2008-07-01 03:50 (-4, **23:50**, S) Day-time 48 NM SE of Mary's River
Nunavut

Canadian Helicopters company dispatch advised North Bay FIC that one of its AS 350 helicopters crashed approximately 48 NM southeast of Mary's River NU at 7118N /7923W. There were four people on board and there were no injuries. TSB Montreal reported that the helicopter was operating about 40 feet above a river and when the pilot turned from downwind to upwind, the helicopter gyrated down into the water. The machine came to rest upright in about 5 feet of water and the occupants were able to evacuate and make it to shore, where they called for assistance. The pilot reported no obvious mechanical problems, but a loss of tail rotor effectiveness may be a factor. TSB has authorized removal of the helicopter from the site. This will be a Class 5 investigation.

2008C2498 2008-07-19 23:30 (-6, **17:30**, S) Day-time 22 NM W of Fort Good
Hope (CYGH) Northwest Territories

TSB reported that the Great Slave Helicopters Bell 206B was landing in a swampy clearing adjacent to a small lake following a flight from Fort Good Hope, NT. After landing, the pilot opened his door and looked back to check the stability of the skids. The helicopter rolled over to the right, sustaining substantial damage. The three occupants were not injured.

2008C2575 2008-07-21 14:30 (-5, **09:30**, S) Day-time Nueltin Lake Nunavut

The Remote Helicopters Ltd. Eurocopter AS 350-B2 was operating in the vicinity of Nueltin Lake, NU. Just prior to touchdown the tail rotor hit a rock on the sloped ground. After the tail rotor impact, the helicopter yawed to the left 1.5 turns before the pilot was able to manage a hard landing. The helicopter remained upright and there were no injuries to the pilot or two passengers. Damage observed included the tail rotor, tail rotor driveshaft, right side of horizontal stabilizer, lower portion of vertical fin, tail boom, both skid gear and right aft skid gear fuselage attachment.

2008C2862 2008-08-09 18:45 (-7, **11:45**, S) Day-time Vicinity Carmacks (CEX4)
Yukon

Yukon A Bell 206 operated by Trans North Turbo Air was lifting off from a site near Carmacks, YT to pick up some power line workers and was about 100 feet AGL when the helicopter descended nose first into the Yukon River. The helicopter was swept up in the fast current and was taken downriver. Both the pilot and the wreckage have not been located two days after the accident. TSB Edmonton has two investigators on site and the company is assisting in trying to locate and retrieve the wreckage and the pilot. Classification of this investigation is currently being assessed.

TSB reported that the Trans North Turbo Air Bell 206B departed the helipad, adjacent to the Yukon River at Carmacks, YT to pick up a power line crew at the main airport. After lift-off, the helicopter started to cross the river and was then observed striking the surface of the river. Debris is reported to have landed on the river bank and a small island in the river. Crews in boats are tracking the wreckage downstream to attempt recovery. The pilot, the sole occupant, has not been recovered. Two TSB investigators have been dispatched.

2008C2919 2008-07-25 00:30 (-7, **17:30**, S) Day-time 40 NM S of Dawson City (CYDA) Yukon

TSB reported that the Fireweed Helicopters Bell 206B was lifting off at a camp 30 NM south of Dawson City, YT, with a pilot and four passengers on board. During the initial climb to get above the tree tops, the pilot elected to turn towards an area of smaller trees. During the turn, the helicopter began an uncontrolled rotation to the right. The pilot elected to set down and a hard landing ensued resulting in substantial damage to the skid gear and tail rotor assembly. There were no injuries to the pilot or passengers.

A Bell 206 operated by Fireweed Helicopters was attempting to lift off from a remote site south of Dawson City with 5 people on board when the pilot lost tail rotor effectiveness and the helicopter began to spin. The aircraft descended to the ground and landed hard, causing the skids to collapse and the tail rotor assembly to be damaged. The five occupants were not injured and later picked up and returned to Dawson City.

2008C2970 2008-08-15 02:12 (-6, **20:12**, S) Day-time SW of Wollaston Lake (CZWL) at 5708N/10433W Saskatchewan

TSB reported that the Heli-Transport Bell 206L helicopter was landing near mile 247 on Saskatchewan Hwy 905, when the skid gear became entangled in rocky terrain. The aircraft entered a dynamic rollover condition and sustained substantial damage. The pilot, the sole occupant, was transported to hospital in La Ronge, treated for minor injuries, and was later released.

A Bell 206 operated by Helicopter Transport Services was landing in a remote site southwest of Wollaston Lake to pick up 5 people when the helicopter's skid got caught and the helicopter rolled over. The machine was substantially damaged and the pilot

received minor injuries. Another helicopter was dispatched to retrieve the personnel. The ELT was activated during the event.

2008C3245 2008-08-27 22:00 (-6, **16:00**, S) Day-time 45 NM SW of Yellowknife
(CYZF) Northwest Territories

When the Great Slave Helicopters Ltd. Bell 206B lifted off from a clearing 45 NM southwest of Yellowknife, NT, the left skid gear caught on a stump. The helicopter rolled slightly to the left, and tipped backwards. The main rotor blades contacted the ground and severed the tail boom. The helicopter remained upright with the tail down-slope, sustaining substantial damage. There were no injuries to the pilot and two passengers.

2008O0699 2008-04-19 18:00 (-4, **14:00**, S) Day-time vicinity of Georgetown
Ontario

The Great Lakes Helicopter Corp. Robinson R-22-Beta helicopter was performing demonstration flights in the vicinity of Georgetown, Ontario. During a hover exercise, approximately 10-15 feet above the ground, control of the helicopter was lost. The helicopter impacted the ground and was destroyed; the pilot and passenger received serious injuries. T.S.B. Investigators deployed to the occurrence site.

2008O1026 2008-05-25 17:00 (-4, **12:00**, S) Day-time 5NM west of Timmins
Ontario

The Gateway Helicopters Ltd. Bell 206B Jet Ranger helicopter was on a demonstration flight near Timmins, Ontario. During a demonstrated autorotation with a power recovery, the aircraft impacted the ground in a tail-low attitude. The main rotor blades impacted the tail rotor drive shaft and severed the shaft. There were no injuries.

2008O2462 2008-10-16 19:30 (-4, **15:30**, W) Day-time Kenogami River
(northwest of Hearst) Ontario

The pilot of the Bell 206B Helicopter, was attempting to sling a moose carcass out of the woods, when the sling became caught over the right skid. The aircraft reached an altitude of approximately 20 feet and dynamically rolled to the right and into the Kenogami River. The helicopter was substantially damaged, there were no injuries to the three on board.

2008P0192 2008-02-07 19:00 (-7, **12:00**, W) Day-time 9 NM West of
Golden BC (5130N 11720W) Mt. Whitehorn British Columbia

The Bell 212 helicopter, operated by Purcell Helicopter Skiing Ltd, was transporting seven skiers and a guide to a site near White Horn Mountain near Golden, BC. The helicopter encountered turbulent conditions on approach to the landing site and landed hard at 7,500 feet asl, short of the intended site. The pilot was fatally injured, one passenger was seriously injured and the helicopter was substantially damaged. The

passengers and crew were evacuated from the accident site by Golden Search and Rescue using a local helicopter operator.

2008P0350 2008-03-04 00:20 (-8, **16:20**, W) Day-time Heather Mountain, BC British Columbia

The Canadian Helicopters Ltd. Aerospatiale AS350 B-2 was involved in heli-ski operations at Heather Mountain, BC. On a fairly fast descent, in a turn, and with low torque the cyclic and collective locked up sending the aircraft into trees. Control was regained and the aircraft appeared to be okay. The group of skiers were dropped off and a subsequent flight attempted when a vertical vibration was noticed. The aircraft returned and was shut down. Inspection revealed damage to the main rotor blades, tail rotor and the right hand horizontal stabilizer consistent with a tree strike.

This incident was determined to not be maintenance related. Initial report by the Pilot In Command indicated possible "servo transparency". The TSB has investigated the condition of the servos and other hydraulic components, with no apparent fault found (TSB report not finalized as yet).

2008P0640 2008-04-21 16:30 (-7, **09:30**, S) Day-time 5 NM Southwest of Hecate British Columbia

The Hayes Helicopter Services Ltd. Bell 206B helicopter was doing vertical reference work with a 150 ft long line, placing equipment into a remote location 5 NM Southwest of Hecate, B.C. on the West Coast of Vancouver Island when the tail rotor came into contact with a tree branch. The pilot immediately landed the helicopter on an adjacent logging road and inspected the tail rotor. Minor damage to the tail rotor was found; however, the helicopter was deemed unfit for further flight.

2008P0901 2008-06-03 18:30 (-7, **11:30**, S) Day-time Security Bay, Vancouver Island British Columbia A08P0154:

The Black Tusk Helicopter Bell 214B-1 was engaged in a heli-logging operation at Security Bay on the North end of Vancouver Island. On lift off the tail rotor hit a small rock. The tail-rotor and the 90 and 42 degree gearboxes were replaced, and the appropriate inspections were completed.

Operational tail rotor strike in un prepared landing area heli logging. No further action required.

2008P1210 2008-07-15 23:15 (-7, **16:15**, S) Day-time 80 miles North of Fort St. John British Columbia

A Vancouver Island Helicopters Bell 206B was departing from a gas plant site 80 NM North of Fort St. John, BC. At about 25 ft into the take off run and approximately 50 feet agl, the pilot experienced an un-commanded yaw to the right. The helicopter spun to the

right numerous times before coming to rest within the plant site. The pilot and two passengers were not injured. OPI changed to Maintenance & Manufacturing.

Aircraft inspected and engine bench tested; no faults evident other than damage caused during impact with terrain. Suggest OPI be changed back to Commercial & Business Aviation as VIH flight department may have more information.

2008P1461 2008-08-13 18:07 (-7, **11:07**, S) Day-time 25 NM NE of Terrace
(Legate Creek), (N54.39.09 W128.04.59) British Columbia

The Quantum Helicopters Bell 206L helicopter, s/n 45019, was moving a drill at Legate Creek, about 25 NM Northeast of Terrace, BC, on a steep mountain side when the tail boom broke. The helicopter was setting the load down at the time. The tail bent 90 degrees, then the helicopter moved away from the drill site with the load attached. The load settled into the trees close by and the helicopter descended over the edge of the hillside ledge and crashed inverted into the rock face below. The helicopter remained attached to the load and hanging suspended by the long line. The pilot sustained fatal injuries. There was no fire.

2008P1631 2008-09-03 21:25 (-7, **14:25**, S) Day-time 40 NM North of Stewart
B.C (5636N 13006W) British Columbia

The pilot reported conditions of low ambient light over the ice field contributed to the pilot losing reference with the horizon and the helicopter impacting the glacier. The helicopter left a 40 to 50 foot furrow on the glacier surface prior to coming to rest. The tailboom and the main rotor blades were separated as the helicopter rolled. Minor injuries to the four persons on board is reported. The TSB is not travelling to the scene at last report.

The Prism Helicopters MD369D helicopter was transporting 3 passengers from one side of a glacier to the other, about 40 NM North of Stewart, B.C. The weather was overcast, with scattered cloud below (flat light condition). The helicopter struck the glacier in forward flight and nosed over to the right. The helicopter was substantially damaged but there was no fire. The 4 occupants sustained minor injuries.

2008P1906 2008-10-04 18:00 (-8, **10:00**, W) Day-time 4 NM Northwest of
Horsefly Lake British Columbia

The Highland Helicopters Aerospatiale AS 350 B2 helicopter was conducting long line operations near Horsefly Lake. During a take-off the main rotor struck a 2 inch pine tree. The pilot released the load and landed immediately. All three main rotor blades sustained substantial damage.

2008Q0654 2008-03-13 22:54 (-5, **17:54**, W) Day-time Lac St-Louis,
Pointe-Claire, à 5NM à l'ouest de (CYUL) Quebec

According to TSB Report #A08Q0053, the Bell 206L had just taken off from Montréal/Trudeau (CYUL) for a twenty-minute flight to Montréal/Les Cèdres (CSS3). A few minutes after takeoff from CYUL, the helicopter disappeared from the radar. The helicopter collided with the ice surface of Lac St-Louis approximately 5 NM southwest of CYUL. Weather conditions at CYUL at the time of the accident were as follows: visibility 8 mi in snow, ceiling 2 500 ft, winds 030 degrees at 10 kt. The pilot sustained minor injuries and was able to call for assistance via a cell phone. The pilot was rescued 2-1/2 hr after the occurrence. The aircraft was destroyed.

2008Q0694 2008-03-19 18:13 (-5, **13:13**, W) Day-time
482230N/0741259W (Barrage Gouin) 80NM NW de La Tuque Quebec

The Rescue Coordination Centre (RCC) sent a Hercules and a Griffon to the scene. The Griffon could not assist in the search because of the weather conditions. A second helicopter already on scene found the wreckage and confirmed that the pilot was alone on board and fatally injured. Visibility was between 1 1/2 to 3 SM, 800 ft ceiling.

2008Q2984 2008-06-29 20:14 (-4, **16:14**, S) Day-time Rivière George
Quebec

To facilitate the boarding of passengers at George's River, NU, the pilot of a Helicopter Transport Service AS 350B2 chose to land with the wind at his left. With the skids touching the soil, while the aircraft was still light on the landing gear, the pilot felt the right skid sink in the vegetation. The aircraft then suddenly released from the turf and started to roll to the left. The pilot quickly set the helicopter down on the ground and it landed heavily. Only the skids hit the ground but the impact was sufficient enough to break the tail boom.

2007:

28 total - 10 AM, 17 PM, 1 unknown

2007A1380 2007-11-22 13:31 (-4, **09:31**, W) Day-time 80 Nautical
Miles Northwest of Goose Bay (54:36 N, 061:01 W) Newfoundland and Labrador

A Eurocopter AS 350, had departed the airstrip at Silver Spruce camp for Goose Bay, both in Labrador, with one pilot and four fuel drums on a longline. At approximately 200 yards from the strip and at 150 feet above ground, the aircraft began an un-commanded left roll. The pilot attempted to counter the roll with full right cyclic input at which point the aircraft slowly rolled to the right. The pilot was able to turn the aircraft back toward the field in a slow right turn; however, at about 100 yards away, the nose of the aircraft dropped and the aircraft entered a right spiral at which point the pilot attempted to arrest the nose-down attitude. The aircraft struck the ground and came to rest on its left side. The aircraft attitude at impact is unknown at this time. The pilot shut down the still-

running engine, turned off the battery master, and exited the aircraft with a minor superficial injury on one hand.

The occurrence in Silver Spruce Camp , 80 nautical miles Northwest of Goose Bay with a Canadian registered AS350 helicopter was caused by the long line cable getting caught in the helicopter skid tube on takeoff which created an un-commanded left roll.

2007C0152 2007-01-14 21:00 (-7, **14:00**, W) Day-time 5 NM N of Robb Alberta

The Abitibi Helicopters Aerospatiale AS350-B2 (C-FHAP) was laying seismic bags near Robb, AB along a road with a carousel on a 150 foot long line. As the helicopter was flying between the road and a parallel power line, the pilot did not notice a supporting guy wire from the power line that crossed the road. The long line snagged the wire, pulling down a power pole and causing the helicopter to descend in a nose-down attitude. The slung load was jettisoned, and the helicopter landed in a field a short distance away. There were no injuries to the pilot or damage to the helicopter.

2007C1334 2007-05-18 16:30 (-6, **10:30**, S) Day-time Whitecourt 40 NM W of Whitecourt (CYZU) Alberta

Maintenance and Manufacturing reported that an inspection after abnormal occurrences will be followed in order to ascertain the airworthiness of the aircraft. No maintenance issues occurred before, or during this incident. The resultant impact on the skid gear with the large log was broken tubes. The airframe was inspected for any damage as a result of landing on the log pile support. No damage was evident. The operator will conduct a Level 1 and Level 2 over torque inspection as per the Bell Maintenance Manual. Required components will be removed and sent to the appropriate maintenance facilities for inspection. No inspection of the engine will be required due to the parameters for the over torque inspection.

During seeding operations west of Whitecourt, the Mustang Helicopters Bell 206B was landing on sloping, muddy ground at a forestry staging area. On touchdown, the helicopter began to slide sideways and the landing was aborted. During the lift-off, the right skid gear struck a fuel barrel, and the pilot compensated to the left. The left skid gear struck a large log, causing the skid tube to nearly break off the helicopter. An improvised log pile was built, upon which the helicopter was landed successfully. Damage will be assessed by maintenance.

2007C1630 2007-06-20 19:00 (-5, **14:00**, S) Day-time Baker Lake Baker Lake (CYBK) Nunavut

A Guardian Helicopters AS 350 was slinging a load at Baker Lake airport when the load struck and damaged an airport floodlight.

2007C1656 2007-06-17 21:00 (-6, **15:00**, S) Day-time Wrigley Wrigley (CYWY) Northwest Territories

The Canadian Helicopters Bell 206B was landing at the Wrigley airport, NWT. Following a normal approach to the airport, the pilot hover taxied to a fuel cache and established the helicopter in a stabilized hover above the intended touch down area. Immediately prior to ground contact there was a loud bang and the nose of the helicopter pitched up. The pilot rolled the twist grip toward the flight idle position and the helicopter landed hard. The helicopter sustained minor damage; the pilot was uninjured. Initial maintenance examination verified flight control and drive train continuity. The winds were estimated to be 20 knots gusting to 30 knots and the helicopter was turned ninety degrees to the wind just prior to touchdown. The helicopter will be examined in greater detail after it is transported to a company maintenance facility.

2007C1699 2007-06-23 02:00 (-6, **20:00**, S) Day-time Fort Liard 5 NM E of Fort Liard (CYJF) Northwest Territories

The Great Slave Helicopters AS 350 B1 was conducting water bucket operations 5 NM east of Fort Liard, NT. While hovering during a pickup in a shallow pond, the pilot became disoriented over glassy water and the helicopter rolled over onto its side into the water. There were no injuries and the helicopter sustained substantial damage.

2007C1763 2007-07-02 01:00 (-6, **19:00**, S) Day-time Points North Landing 24 NM SSW of Points North Landing (CYNL) Saskatchewan

TSB reported that the Aerospatiale AS350 B-2 helicopter was en route from Bernick Lake, SK to Points North Landing on a flight notification. When the aircraft was overdue at destination, a search was commenced. Some wreckage was observed on Bernick Lake, but the two occupants were not located.

It was reported that the wreckage was found in 65 feet of water in Bernick Lake. The bodies of the two occupants were inside the helicopter. Salvage crews will attempt to retrieve the helicopter and bring it to the shore of the lake. TSB has made this a Class 3 investigation and a Minister's Observer will be appointed from System Safety.

2007C1817 2007-06-26 20:00 (-6, **14:00**, S) Day-time Port Radium Port Radium (CYIX) Northwest Territories

The Great Slave Helicopters Hughes 369D had toed-in to a rocky outcrop surrounded by bush near Port Radium, NT for passenger pick up. The helicopter began to yaw and the pilot lifted off. The aircraft completed three to four rotations before the pilot was able to get the helicopter back on the ground. There were no injuries to the pilot who was the only person on board. The helicopter sustained substantial damage to the tail rotor system, vertical fin, skid gear and tail boom. No apparent pre-existing deficiencies in the tail rotor system were found during examination of the wreckage.

2007C2073 2007-07-24 Day-time (unknown) Eagle Plains Yukon

The Fireweed Helicopters Ltd. Bell 206-L1 was operating in the vicinity of Eagle Plains, YT. During an attempt to touch down in a swampy area, the right bear paw got hung up resulting in a dynamic rollover to the right. The pilot and passenger were not injured; however, the helicopter was substantially damaged.

2007C2257 2007-08-09 14:30 Day-time (-5, **09:30**, S) Vicinity Cranberry Portage
Manitoba

The pilot and passenger in a Custom Helicopters Bell 206 were on a power line maintenance flight about 30 NM southeast of Flin Flon when the aircraft crashed and burned. Both occupants were fatally injured. TSB will send two investigators to the site tomorrow morning.

2007C2295 2007-08-12 20:20 Day-time (-6, **14:20**, S) Nordegg River
Vicinity Nordegg River (A166) Alberta

A Bell 206 helicopter operated by Kananaskis Mountain Helicopters, was on VFR touring flight when it crash landed in Abraham Lake near Highway 11 west of Nordegg, AB. The three occupants were able to exit the helicopter and swim to shore. The two passengers experienced minor injuries.

2007C2628 2007-09-12 23:00 (-6, **17:00**, S) Day-time 5 NM W of
MacIntyre Lake Saskatchewan

TSB reported that the helicopter was operating near its maximum gross weight. The temperature was at or near freezing with light precipitation and winds out of the NE at 5 - 10 knots. The pilot initially attempted a vertical takeoff at 100% power but after becoming airborne the helicopter settled back to the ground. The pilot re-positioned the helicopter in the downwind side of the clearing and attempted a forward takeoff from hover into the wind. As the helicopter transitioned from the clearing to over top the trees at 100% power the helicopter yawed 90 degrees to the right. The pilot reduced the collective, put on left anti-torque pedal and moved the cyclic into the direction of rotation, however the helicopter did not straighten out. The helicopter began to descend and continued to spin to the right until it was eventually heading downwind. The pilot reduced engine power and the helicopter straightened out at approximately 10 feet above tree top height. The pilot rolled on max power to arrest the descent but the helicopter began to spin to the right again. The pilot rolled off the throttle and attempted to set the helicopter down into a sparsely treed area but the helicopter hit the ground with a sideways movement on its left skid causing the helicopter to roll onto its left side. The pilot had flown this particular load before but several factors could have affected this flight, including: possible icing from a previous flight, changing wind speed and direction, and site factors including the height and proximity to the trees. Pulling too much power can cause a droop in the main rotor rpm resulting in a more pronounced loss of tail rotor rpm. This loss of tail rotor effectiveness would result in the helicopter spinning to the right.

2007C3133 2007-06-22 22:15 (-6, **16:15**, S) Day-time High Level High Level
(CYOJ) Meander Fuel Cache Alberta

The Skyline Helicopters Bell 212 was working a fire near High Level. As the pilot was descending to land at a fuel cache, with the bucket attached to a long-line, he noticed 3 empty fuel drums begin to roll away. He double checked to ensure no other drums had rolled onto his intended landing spot, but in the process, the helicopter drifted to a slightly different landing area where the tail rotor blades contacted a standing fuel drum. The helicopter landed without incident, and damage was limited to the tail rotor blades.

2007O0184 2007-02-02 22:30 (-5, **17:30**, W) Day-time Cambridge
area (south of Kitchener) Ontario

C-FGTN, an R44 II helicopter, (operated by The Helicopter Company Inc.) crashed in a field with substantial damage. Aircraft had departed Kitchener/Waterloo airport (CYKF) on a maintenance check flight. Two people on board were hospitalised with unknown injuries.

2007O1459 2007-07-20 17:00 (-4, **13:00**, S) Day-time Moosonee 26 Miles SW
Moosonee (CYMO) Ontario

The Hydro One Networks Aerospatiale (AS 350-B2) helicopter, was descending to land in an open area near a communications tower with support cables on three sides. At approximately 100 feet above ground the main rotor blades contacted the two top cables and control of the helicopter was lost. The helicopter became entangled in the cables and struck the ground in an inverted position. The helicopter was substantially damaged during the impact but there was no post-crash fire. Two of the occupants evacuated the aircraft with minor injuries but the pilot remained pinned in the cockpit. A cabin located at the base of the tower was equipped with a telephone which one of the occupants used to call air ambulance services in Moosonee. The air ambulance helicopter responded immediately and when it reached the accident site extricated the pilot from the wreckage. All of the three occupants were then taken to a local hospital. TSB investigators from the Ontario Region were notified of the occurrence and were dispatched to the accident site.

2007P0575 2007-04-04 21:30 (-7, **14:30**, S) Day-time 35 NM SE of Prince
Rupert British Columbia

On April 4, 2007, the pilot was working with B.C. Hydro in the Prince Rupert Area. The pilot was asked to reposition the Alpen Helicopters Bell 206L to the other side of the power lines to keep B.C. Hydro from having to bring a boat from 1 ½ mile away to the work zone. This was not the normal or routine side of the power lines from which the pilot was working. Thus on take off, the pilot flew up into the lines, and severely damaged the aircraft. There were no injuries.

2007P0870 2007-05-23 13:45 (-7, **06:45**, S Day-time
Arm British Columbia

1 NM N of Frederick

The Helifor Industries Hughes 369D helicopter departed from a camp at Fredrick Arm for a local flight. Shortly after take-off, an unusual noise was heard followed by a louder noise and a shudder in the tail rotor pedals. A precautionary landing on an adjacent logging road was made and the helicopter was shut down normally. Upon inspection, one tail rotor blade was found to have a hole in it and some skin damage was found on the right side of the helicopter, aft of the engine oil filler cap and above the turtle back. It was reported that the engine inlet cover was not fully removed during the pre-flight inspection due distraction by passengers who were waiting to board the helicopter. The cover had come off and struck the tail rotor in flight. The helicopter is undergoing a tail rotor strike inspection to determine the full extent of the damage.

The company advised on May 23, 2007 the Helifor Industries Hughes 500 suffered damage when the still partially attached engine inlet cover came off in flight and struck the tail rotor. The pilot became distracted during his morning pre-flight by passengers milling around his aircraft waiting to depart on the first trip of the day. The pilot had removed the inlet cover on the left side of the aircraft, but forgot to complete the process and left it attached on the right side of the aircraft. The pilot had also allowed himself only 15 minutes to pre-flight the aircraft and his normal routine was disrupted by a somewhat cramped heli-deck. The aircraft was landed without further incident or injury but the tail rotor was damaged beyond repair and damage occurred to the fuselage. The lessons learned were: 1. Allow ample time to complete your pre-flight without rushing. Refer to Helifor Pilot Handbook; 2. Walk around your aircraft prior to every flight; 3. Instruct your passengers to be on the lookout for, and alert you to unusual conditions; 4. Don't be afraid of asking for improvements to your landing area if it is unsatisfactory; 5. Pay attention to your surroundings. Take a step back every once in a while and look at the big picture.

2007P1208 2007-06-28 20:15 (-7, **13:15**, S) Day-time
Columbia

Nitnat Lake British

The pilot of a Hayes Bell 206B helicopter encountered heavy fog and lost visual reference during a local VFR flight near Nitnat on Vancouver Island. The pilot lost control and the helicopter entered vortex-ring state and the nose pitched down rapidly. During the pilot's subsequent recovery actions, the nose attitude changed to extreme nose-high, resulting in an overtorque and airframe/transmission damage. The pilot then descended, broke out from the base of the cloud, cleared the terrain, regained visual reference and landed the helicopter in a clearing without further event. There was no injury.

2007P1648 2007-07-27 03:45 (-7, **20:45**, S) Day-time
Columbia

Banks Island British

The Alpen Helicopters Bell 206L-1 helicopter, was returning to the logging camp after the day's work. The pilot decided to land in a different place from usual. As he was touching down in a confined area, he realized the slope was too steep and the ground uneven. He was unable to do a pedal turn because of vegetation. As he applied power to abort the landing he felt the tail rotor hit something. He immediately landed and shut down. After exiting the helicopter the pilot noticed that the terrain sloped steeply up under the tail rotor. He observed that the tail had struck the ground, causing minor damage. The pilot was not injured.

On July 26th/2007, a pilot was working at a logging camp in the Prince Rupert Area. The landing zone in the confined area was changed by the pilot. While repositioning the Bell 206L to the other side of the confined area, and not realizing the slope behind the helicopter, the tail rotor struck the slope while setting down. The aircraft was then repositioned slightly to land and inspect the damages. There were no injuries.

2007Q0969 2007-05-27 13:48 (-4, **09:48**, S) Day-time 167NM au nord-est
de Chibougamau/Chapais (CYMT) Quebec

Helicopter Transport Services (Canada) Inc. Astar AS350 B1 helicopter crashed shortly after leaving Camp Eastmain, QC. The pilot, the only one on board, was fatally injured. The aircraft was destroyed on impact. Two TSB investigators were deployed to the accident site. At 1348Z, Helicopter Transport Services (Canada) Inc. Astar 350 helicopter that had taken off from camp Opinaca on a VFR crashed approximately 5 NM from the camp (521595N/0720291W), approximately 80 NM south of La Grande (CYGL). The pilot, the only one on board, died. The cause of the accident is unknown. The TSB investigation class is currently being determined.

2007Q1177 2007-06-16 10:00 (-4, **06:00**, S) Day-time Région de Port-
Cartier (1.5NM au nord de 520717N/673580W) Quebec

The Bell 206B helicopter was being used for water bucket operations on a fire near a railroad track. While hovering over the water, 20 feet from shore, visual references were lost and the helicopter moved too far forward in reference to the submerged water bucket. The aft corrective action resulted in the tail rotor hitting the surface of the water, breaking the tail rotor shaft. Tail rotor control was lost and the aircraft did a 360 degree turn, in which time the pilot shut the fuel valve. The aircraft descended upright and ditched right on contacting the water. The main rotor blades hit the roof of the aircraft which injured the pilot, who was not wearing a helmet. The pilot exited the aircraft and held on to the tailboom before swimming to shore. The aircraft sank inverted in shallow water. The pilot walked 200 meters to join a work crew and was given appropriate first aid before being evacuated to hospital via helicopter. The aircraft was substantially damaged.

2007Q1178 2007-06-19 12:30 (-4, **08:30**, S) Day-time Sud-ouest de
Chibougamau/Chapais (CYMT) (493641N/0745025W) Quebec

The Bell 206B,, was assigned to the mapping of a forest fire 22 nm south-west of Chibougamau. The aircraft was flown approximately 150 ft AGL, at low airspeed, in high winds reported at 11 kts gusting 18 kts. While upwind, the pilot backed up slightly to give a better view of the fire perimeter to the two passengers doing mapping. The aircraft lost tail rotor effectiveness, did several 360 degree turns before descending into the trees and severing the tailboom. A post-impact fire started but was quickly extinguished by the pilot who had already exited the aircraft. He closed the fuel valve, all electrical systems and used the fire extinguisher. The pilot confirmed that the ELT was ON. When no position report was given to the fire dispatch at the appropriate time, a helicopter was sent to look for them. They were evacuated to the local hospital. The passengers sustained minor injuries . The pilot was not hurt. The aircraft was destroyed.

2007Q1279 2007-07-01 13:30 (-4, **09:30**, S) Day-time Camp Outardes
Quebec

Helicopter AS350 B2 was engaged in forest fire control operations in Quebec. While it was transporting an aluminum boat in a long sling (50 feet), the sling cable hit the tail rotor. The pilot disconnected the load and landed the helicopter without further incident.

2007Q1402 2007-07-22 19:00 (-4, **15:00**, S) Day-time St-Anicet
Quebec

The pilot of the R-44 Robinson helicopter, operated by Quebec Helicopters, had landed at the private residence in St-Anicet, Québec to pick-up the owner of the aircraft before proceeding to Mont Tremblant. On take-off, at approximately 10 ft AGL, the main rotor struck an overhanging tree branch. The front cabin area of the helicopter came to rest on its right side, suspended over the water on a stone wall. The rear portion of the helicopter remained on land. Environment Canada was contacted for the fuel spill which ensued. The passenger was unhurt. The pilot was initially unconscious and was assisted out of the helicopter, taken to the hospital by ambulance and kept overnight for observation. The aircraft was substantially damaged.

2007Q2226 2007-08-30 19:00 (-4, **15:00**, S) Day-time 18NM au nord-
ouest de Nemiscau (CYHH) Quebec

The Astar 350 BA operated by Héli-Wask (Héli-Inter) was in the landing phase near an electric line north of Nemiscau (CYHH) when the tail rotor struck the ground. The pilot managed to land the aircraft. Neither of the two occupants was injured. The aircraft sustained major damage to the rotor and tail boom.

2007Q2603 2007-10-30 18:15 (-5, **13:15**, W) Day-time 40NM au
nord - nord-est de Nemiscau (CYHH) Quebec

The Aerospatiale Astar AS350 D was executing longline seismic operations with a 'BIRD'. While manoeuvring to regain sight of the sling load, the longline struck the tail rotor; a loss of control ensued. The aircraft was destroyed while crash landing in a

swamp. The pilot contacted SAR Trenton via satellite phone. A company aircraft rescued the pilot and passenger; they were not injured.

An Astar 350 operated by Hélicraft 2000, was conducting a visual flight rules (VFR) flight. The pilot was accompanied by an operator, and the aerial sling work consisted of geodetic surveying. At approximately 1815Z, when it was 40 NM north-northeast of Nemiscau (CYHH), at the geographical coordinates 5241.1N/07519.084W, the pilot lost sight of his load, and manoeuvred to regain sight of it. He seems to have backed up by lowering the helicopter's tail and the cable seems to have gotten caught in the tail rotor. The helicopter crashed into a swamp, and seems to be a total loss. Neither the pilot nor the passenger was injured. The pilot notified the Trenton rescue coordination centre (TR RCC). Another helicopter belonging to the company went to the site to rescue the two occupants.

2008P0064 2008-01-09 20:45 Day-time (+11, **07:45**, S) **Moorabbin Airport,**
12 NM E

Tasman Helicopters contacted Bell Helicopter Textron and determined that there was no sudden stoppage. A new set of rotor blades had been sent to the aircraft and the company was completing minor inspections.

The Bell 212 Helicopter operated by Tasman Helicopters for the Australian Forest Service was hovering over a small pond during a test flight when the main rotor contacted a tree. The blade strike was not detected until after the helicopter returned to the airport and was shut down. Company maintenance will replace the main rotor blades and complete inspection of the drive train components.

2008P0112 2008-01-10 17:00 (-8, **09:00**, W) Day-time Bell II Lodge,
48 KM South of Bob Quinn Lake British Columbia

The Tasman Helicopters Bell 407, origin/destination unknown, had a main rotor blade strike one of the horizontal stabilizer tip plates on application of aft cyclic. Tasman has contacted Bell Helicopter Textron and it was determined that the aircraft did not experience a sudden stoppage. The tip plate, horizontal stabilizer, and main rotor blade are to be replaced. Maintenance has made a request to the company to confirm the location of the incident.

The pilot of the Tasman Helicopters Bell 407 was attempting a drop off of a first group of heliskiers on the mountain top (Jessie's ski run). The flags were visible at the landing and a couple of passes were flown before setting up for an approach. Initially visibility was fairly good with the reference of the valley below and the flags, but as the aircraft closed in the pilot could not see the valley anymore and it became very white quite early. To avoid the risk of an abort in total loss of reference, the pilot decided to continue the descent. He lowered the collective a little to ensure not to overshoot. The aircraft unexpectedly landed about 30 feet before the flags with some forward speed. The landing was good but the forward speed seemed fast so the pilot instinctively

reduced speed pulling back on the cyclic. Nothing was heard or felt and there was no noticeable deceleration of the RPM of the engine or the main rotor. Suspecting he may have pulled back too far on the cyclic, after the group disembarked the pilot landed at the lodge for inspection of the vertical stabilizer and noted it had been contacted. At the time it was felt necessary to slow the machine down, but upon reflection although the flags were visible it was determined the mountain top was too white at the time for a safe landing. The pilot has noted the need to lower his limits for low visibility landings and not be so focused.

2006:

38 total - 13 AM, 24 PM, 1 unknown

2006A0775 2006-09-18 19:00 (-3, **16:00**, S) Day-time 25 Miles South West of Postville Labrador Newfoundland and Labrador

C-GAHS, Bell 206L, was conducting long line work in a confined area when the tail rotor struck a tree. The crew was able to maintain control and the aircraft landed safely. There was damage to the tail rotor shaft and blade. These parts will be replaced. TSB Case Closed.

The Bell 206L helicopter, registration C-GAHS, was landing in a confined area after some longline work. During the landing, the tail rotor made contact with a tree, however, the helicopter remained controllable and was landed without further event or damage. The tail rotor and tail rotor drive shaft sustained damaged and will be replaced.

2006A0877 2006-10-17 18:35 (-4, **14:35**, W) Day-time Approx. 53:20N 61:01W near Goose Bay Newfoundland and Labrador

The Canadian Helicopters Ltd. Bell 206L, C-GNLK, was landing at a remote site (53:20N 61:01W) adjacent to the Churchill River, NL. During the landing flare the tail rotor came in contact with the water. The pilot completed the landing safely without further damage to the machine; no injury to occupants. After shutdown an inspection of the tail rotor revealed that one blade had been bent during the event. Maintenance personnel were being flown in to effect repairs on the helicopter.

2006C0245 2006-02-02 19:40 (-7, **12:40**, W) Day-time 40 NM S of Rainbow Lake (CYOP) at PenWest Gas Plant Alberta

The Remote Air Operators Inc. Robinson R44 II helicopter, C-FEHD, was operating from the PenWest Mega Gas Plant, located approximately 40 NM south of Rainbow Lake, Alberta. The pilot was maneuvering the aircraft to refuel before commencing sling operations when the main rotor blades came into contact with the fuel tank. The aircraft

sustained substantial damage to main rotor blades and power train. The fuel storage tank sustained damage and was reported as leaking. There were no injuries.

2006C0532 2006-03-21 21:00 (-7, **14:00**, W) Day-time 25 NM NW of Zama Lake Alberta

Transportation Safety Board in Edmonton advised of a helicopter accident involving an MD-600 helicopter, C-FTAZ, that crashed 45 miles northwest of Zama City at 1400 MST on March 21. The 37-year-old male pilot was the only occupant on board and he suffered fatal injuries. Two investigators from TSB Edmonton have deployed to the accident site.

TSB reported that the Rupert's Land Operations Inc. McDonnell Douglas 600N, C-FTAZ, was conducting helislinging operations 25 NM northwest of Zama Lake, AB (CFT9) when the helicopter crashed. The pilot, who was the sole occupant, sustained fatal injuries. There was no post impact fire. Two TSB investigators have been dispatched to the scene.

2006C1063 2006-05-21 14:00 (-6, **08:00**, S) Day-time Slave Lake (CYZH) Alberta

The Slave Lake Helicopters Ltd. Bell 206B, C-GIEH, was being ferried from Slave Lake, AB to Wabasca, AB. While en route, the pilot encountered deteriorating weather and performed a precautionary landing. During touchdown the main rotor blades struck a tree. When the weather improved, the helicopter was flown back to Slave Lake for maintenance to determine the extent of the damage.

TSB reported that the damage has been assessed as substantial and this event has been classified as an accident.

2006C1159 2006-06-02 0218z (-6, **20:18**, S) Vicinity Pelican (CFT8) Alberta

TSB reported that the Highland Helicopter Bell 206B (C-GMXE) experienced a loss of tail rotor authority shortly after take off. C-GMXE rotated three times to the right before crashing into trees. The aircraft was substantially damaged. There was no post impact fire.

RCC Trenton advised Edmonton ACC that they had an ELT near Pelican, AB at 0218z. An ELT was confirmed by the crew of PE 580 at 0352z. RES 477, a Griffon helicopter, was dispatched from CFB Cold Lake and RES 342, a C-130 Hercules, was dispatched from CFB Winnipeg. RCC subsequently advised that 3 persons were removed from the site where C-GMXE, a Bell 206, had gone down and were transported to Fort McMurray by company helo. At 0600z RCC requested RES 342 to return to Winnipeg and RES 477 carried on to Fort McMurray. Initial reports from TSB suggest that a loss of tail rotor effectiveness may have occurred. The helicopter had lifted off and was transitioning to forward flight about 100 feet AGL when the helo spun to the right 3 times

and descended into trees and then into the dirt. The three occupants were not injured. The machine will be removed from the site and taken to the TSB office in Edmonton for examination.

2006C1531 2006-07-04 00:31 (-6, **18:31**, S) Day-time 35 NM S of Grande Prairie (CYQU) Alberta

Grande Prairie FSS was advised by Alberta Forestry that C-GPGX, a Bell 206 with 4 people on board, had crashed in the vicinity of the Nose Mountain Forestry Tower about 35 NM south of Grande Prairie. The helicopter was in the departure phase when it collided with terrain. One of the passengers was fatally injured and two other occupants were seriously injured. The helicopter was working for Alberta Forestry on fire suppression activity. The accident site is 4,600 feet ASL and the ambient temperature was reported to be 26C at the time of the accident. TSB Edmonton has sent 2 investigators to the site and PNR System Safety has appointed a Minister's Observer for the Class 3 TSB investigation.

UPDATE TSB reported that the Precision Helicopters Inc. Bell 206B helicopter, registration C-GPGX, was departing the Nose Mountain forestry observation tower in support of forest fire suppression operations. Shortly after lift-off the helicopter struck the ground killing one passenger and seriously injuring one other. The pilot and third passenger sustained minor injuries. System Safety has appointed a Minister's Observer for this investigation. RCC Trenton advised Nav Canada that that the ELT on the wreckage of C-GPGX may have been transmitting a signal for the period from 06/07/05/2350z to 06/07/06/0015z while being transported.

2006C1542 2006-07-04 22:20 (-6, **16:20**, S) Day-time 18 NM NE of Wabasca (CEE5) Alberta

It was reported that C-GRHM, a Bell 206, crashed approximately 18 NM northeast of Wabasca, AB. The pilot was the only occupant and he was fatally injured in the accident. TSB is investigating.

UPDATE TSB reported that the Remote Helicopters (NWT) Ltd. Bell 206B, registration C-GRHM, was conducting bucketing operations in support of forest fire suppression activities approximately 25 nm northeast of Wabasca, AB. The helicopter collided with trees and came to rest in an inverted position. The pilot, the sole occupant, was fatally injured. TSB investigators were deployed to the scene. System Safety has appointed a Minister's Observer for this investigation.

2006C1707 2006-07-16 23:30 (-4, **19:30**, S) Night-time 25 NM S of Pond Inlet Nunavut

TSB reported that the AS350 C-GVYK owned by Canadian Helicopters was on a flight to a mining site 25 miles south of Pond Inlet. When the helicopter was landing, the main rotors struck some rocks and the helicopter flipped over. The 3 occupants on board and

pilot sustained minor injuries. They were transported to a medical centre at Pond Inlet, NU, and treated for their injuries. The helicopter sustained major damage. TSB has assigned this as a Class 5 investigation.

2006C1741 2006-07-17 **Unknown** 25 NM W of Fort McMurray (CYMM)
Alberta

UPDATE TSB reported that the pilot of the Canadian Helicopter's Aerospatiale AS350B2 (C-GMIZ) was on an upwind approach to an intended landing area on a small island in the Athabaska River. One of the passengers requested the pilot to fly lower so he could have a better view of the river bed for composition information. The landing was aborted because the aircraft was too high & too close to the island to descend. A turn to the left was initiated to avoid power lines ahead & to the right. The helicopter suddenly yawed left to a downwind heading & began to descend rapidly, and did not respond to the pedals as the pilot attempted to turn back into wind. The helicopter began to settle with power. The helicopter was partially turned back toward the island before impacting on the bank. There were no injuries, but the helicopter was substantially damaged. After all passengers were clear of the helicopter, the pilot contacted a Bell 206 flying nearby who contacted the Ft. McMurray base to arrange for pick up of the pilot & passengers.

2006C1800 2006-07-17 13:10 (-6, **07:10**, S) Day-time 35 NM NW of Slave Lake
(CZYH) Alberta

The Heli-Boreal Inc. AS350 B-2, C-GFBW, took off from a clearing about 35 nm NW of Slave Lake, AB for a local flight. A 100 foot long line, which was attached to the aircraft, snagged briefly on trees and recoiled into the tail rotor. The pilot slowed the resulting yaw by reducing collective pitch, and landed the helicopter upright in the clearing. The pilot was uninjured, and the helicopter sustained substantial damage to the tail section and skid gear.

2006C2038 2006-08-13 16:10 (-6, **10:10**, S) Day-time Davy Lake, SK 4 W (45
NM S of Fond-du-Lac (CZFD) Saskatchewan

UPDATE TSB advised that the Heli-Transport Services McDonnell Douglas 369E was transporting two line cutters from base camp to a position a few miles west of Davy Lake, SK. About 4 miles west the pilot executed a descending 180 degree turn over a small lake. During the turn, a high rate of descent developed, and the helicopter struck the water, overturned and submerged about 100 feet from the shore. All occupants were able to evacuate. One passenger was unable to reach shore and is missing.

2006C2153 2006-08-21 23:45 (-6, **17:45**, S) Day-time Points North Landing
(CKC2) Saskatchewan

The Delta Helicopters Aerospatiale AS350 BA, C-FKDS, was departing from a drill site with a 60-foot long line, on a local flight. On departure, the long line hook snagged a

tree, and then broke free, flew up and fouled the tail rotor and tail boom. The helicopter lost tail rotor authority and rotated several times before the pilot made a forced landing in a wooded area. The pilot suffered minor injuries. The helicopter sustained substantial damage.

2006C2272 2006-08-26 01:00 (-7, **18:00**, S) Day-time Ross River, 20 NM NW, Yukon Yukon

The Trans North Helicopters Bell 206B, registration C-GTNY, descended into a tree during a long line operation, while manoeuvring to pick up a load. Both main rotor blades sustained substantial damage and will have to be replaced prior to a maintenance ferry flight. There were no injuries. A shorter than normal long line was in use, the tree was in the seven o'clock position relative to the pilot, and the pilot had been instructed to move left of his intended position by the ground crew.

2006C2600 2006-09-30 03:25 (-7, **20:25**, S) Night-time Mayo (CYMA) Yukon

The Trans North Turbo Air Ltd. Bell 206B Jet Ranger, registration C-FDRZ, was repositioning in front of the temporary hangar in Mayo, YT, when the tail rotor struck the structure. The tail rotor blades, tail rotor gear box and tail rotor drive shaft required replacement. There were no injuries to the pilot or ground personnel.

2006C2673 2006-10-09 15:25 (-7, **08:25**, W) Day-time 50 NM SE of Grande Cache (CEQ5) Alberta

C-GPWQ, an AS 350 helicopter with a pilot and 2 surveyors, was landing at a remote site about 50 NM southeast of Grande Cache, AB in a rather confined area, when the tail struck a rise in the ground. The pilot lost control of the aircraft, which spun around then descended to the ground. The ensuing hard landing caused the tail boom to separate from the body of the helicopter. The pilot suffered a lacerated hand and one passenger suffered a broken rib. The other passenger was not injured. Another helicopter was dispatched to remove the occupants from the site. TSB report to follow.

UPDATE TSB reported that the Pacific Western Helicopters Ltd. Aerospatiale AS 350B, registration C-GPWQ, was landing at a remote, confined and unprepared site. Prior to touchdown, the tail rotor struck a rise of ground near the centre of the site. The helicopter began to rotate about the vertical axis, directional control could not be regained, and the skids and tail boom broke away from the fuselage during the ensuing hard landing. The pilot and one passenger sustained injuries while the second passenger was uninjured.

2006C2728 2006-10-12 14:30 (-7, **07:30**, W) Day-time 5 NM NW of Rocky Mountain House (CYRM) Alberta

The Airborne Energy Solutions Bell 206B (C-GTEZ) was landing in a confined area northwest of Rocky Mountain House, AB when the tail rotor contacted trees, causing

considerable damage to the tail rotor and driveline. There was no other damage to the helicopter and the pilot was not injured.

2006C3198 2006-12-08 22:35 (-6, **16:35**, W) Day-time 5 NM N of Cranberry Portage Manitoba

The pilot of C-FLAJ, a Robinson R44 helicopter, contacted Winnipeg FIC on Flin Flon 122.0 and advised that he had put the helicopter down in the bush 2 miles east of Highway 10 and 5 miles north of Cranberry Portage. The pilot reported the a/c was a total loss. He and a passenger walked to the highway, where company personnel were going to pick them up. TSB report to follow.

UPDATE TSB reported that the Gogal Air Services Robinson R44, C-FLAJ, was lifting off from a confined area about 5 NM north of Cranberry Portage, MB. During lift-off the main rotor contacted a power line and the helicopter crashed. There were no injuries; however, the helicopter was substantially damaged. The two occupants were able to communicate by radio and satellite phone and walked two miles to a highway where they were met by the RCMP.

2006O0683 2006-05-01 21:38 (-7, **14:38**, S) Day-time Desert Centre (19NM east)

NOTE This CADOR record has been replaced in its entirety by the information contained herein. The previous information (regarding an unknown ELT signal near Montréal (PETIA) was erroneously entered as an Ontario Region CADOR.

Initial information from T.S.B. Initial Notification (#A06F0072): The Robinson R-44 Raven II helicopter, registration C-FICL, with the pilot and one passenger on board, was en-route from Torrence, California to Blenheim, Ontario when it crashed for unknown reasons. The pilot and passenger were fatally injured and the aircraft was destroyed. The N.T.S.B. is investigating.

2006O1157 2006-06-23 23:25 (-4, **19:25**, S) Day-time 40NM NNE of Chapleau Ontario

The Heli-Inter Inc. Bell 205A-1 helicopter (C-FSMI) with a pilot and three forest workers on board was landing near the edge of a forest fire (about 40NM north-northeast of Chapleau). The pilot returned to the same spot where he had landed on the previous flight to off-load passengers. On landing, the pilot then positioned the helicopter in order for the fire workers to access the cargo compartment. However, the sun was in the pilot's eyes. The main rotor blades struck the top of a tree while the helicopter was about four (4) feet off of the ground, descending to land. The helicopter began vibrating. The pilot unloaded the passengers and completed the return flight towards Chapleau. The helicopter suffered damage to the underside of the blades and the leading edge of the main rotor. A special inspection will have to be carried out before the helicopter is returned to service.

2006O1974 2006-09-24 17:45 (-4, **13:45**, S) Day-time Toronto/City Centre
(CYTZ) Ontario

UPDATE From TSB Occurrence Summary A06O0246: The Canadian Helicopters S-76A, (registration C-FABH) was ground taxiing on the company apron after returning from a local flight. The main rotor of C-FABH came into contact with the tail rotor of another Canadian Helicopters S-76A (registration C-GIMR) that was parked on the ramp. There was substantial damage to 3 of the main rotor blades on C-FABH, and 1 of the tail rotor blades on C-GIMR.

2006P0398 2006-03-18 23:30 (-7, **16:30**, W) Day-time 60nm South of
Tumbler Ridge, BC British Columbia UPDATE from TSB: TSB info added.

At approximately 0030Z the helicopter descended into a confined area below tree line in order to drop off a radio to a ground crew member. While trying to drop off the radio, the pilot took his hand off the collective, the aircraft drifted off to the right making contact with the top of a tree severing part of the tail boom off. Upon loss of tail rotor authority, the helicopter yawed to the right, and the tail boom struck another tree and then proceeded to spin out of control several times. The helicopter fell approximately 25 to 30 feet from the ground and spun to the ground, finally landing on the pilot side. Upon the company onsite inspection, it was determined the tail rotor was in one piece; inspection of the main blades and the rotor head revealed there was one blade grip separated from the head which would be caused by a severe blow. Further inspection of the tail rotor drive shaft revealed it was sheared off in two places, the same as the boom with no twists in the drive shaft. All couplings were checked in the drive shaft and they were not debonded. The conclusion to the company investigation is that the pilot descended below the canopy, took his hand off the collective to drop the radio out the machine to a worker below, and losing vertical and horizontal reference with the trees veered to the right and the main rotor blades made contact with a 3-4 inch tree top severing the tail boom. In conclusion, it was felt by the accident investigation team that the pilot made a bad judgement and caused the accident.

2006P0612 2006-04-24 00:45 (-7, **17:45**, S) Day-time Terrace (CYXT) British
Columbia

C-FRRZ a Lakelse Air Robinson R44 helicopter was preparing to depart the company base. The engine was running and the rotor was turning while a second company pilot was loading fuel containers into the cargo compartment. The pilot in command, who was the only person on board, got out of the helicopter to help with the loading. While the pilot was outside, the helicopter began to lift off, rolled onto its left side and collided with the ground. There was substantial damage to the helicopter but no injuries and no fire.

2006P0964 2006-06-13 23:59 (-7, **16:59**, S) Day-time Harrison Lake @ Fire
Creek British Columbia

A Pemberton Helicopters AS-350 C-FMBC was working at the North end of Harrison Lake at Fire Creek. While attempting to land the tail rotor hit something. The helicopter landed on uneven ground and rolled over. 4 SOB no injuries, all picked up by another company helicopter. Sat Phone used to notify.

UPDATE from TSB: A Eurocopter AS 350 B2 helicopter (C-FMBC) operated by Pemberton Helicopters was conducting a hover manoeuvre to land in a confined area to disembark an environmental survey crew. This was the fifth and final stop of the day at a touchdown area different than originally chosen. While backing up the tail rotor struck an object and began to vibrate. The helicopter touched down on uneven ground and rolled onto its right-hand side. There were no injuries; the helicopter was destroyed. The pilot turned on the ELT and used a satellite telephone to notify the company. The company dispatched another helicopter to pick up the passengers and pilot. The RCC was not required to dispatch.

2006P1285 2006-07-19 02:00 (-7, **19:00**, S) Day-time Manning Park British Columbia

UPDATE: TSB report the pilot attempted a downwind landing and struck the tail-rotor.

2006P1582 2006-08-22 03:20 (-8, **19:20**, S) Day-time Nuiqsut, Alaska

UPDATE from System Safety: The NTSB is the lead investigation organization for this occurrence. The TSB has appointed an Accredited Representative and Transport Canada has appointed a Technical Advisor, both from Pacific Region. At the time of the occurrence, the aircraft was operating under Prism Helicopter's American operating certificate, with an American pilot.

UPDATE from the TSB: The Eurocopter AS 350 B2 helicopter was performing sling-load operations from one remote camp to another in the North Slope area of Alaska. The helicopter did not arrive at destination and searchers found the wreckage the next day. The helicopter was partially submerged in a small lake and the pilot was fatally injured. The NTSB (Anchorage) is investigating the accident and the Canada (TSB) has been granted accredited representative status in accordance with ICAO Annex 13.

The Prism Helicopters Eurocopter AS 350 B2 helicopter (C-FYUN) was performing sling-load operations from one remote camp to another in the North Slope area of Alaska. The helicopter did not arrive at its destination, and searchers found the wreckage the next day. The helicopter was partially submerged in a small lake and the pilot was fatally injured. The NTSB (Anchorage) is investigating the accident, and the Canada (TSB) has been granted accredited representative status in accordance with ICAO Annex 13.

2006P1669 2006-09-03 00:35 (-7, **17:35**, S) Day-time Atlin, 60 NM S, BC British Columbia

UPDATE / Add Info from TSB: The Discovery Helicopters Ltd Bell 206L-1 (C-GFWF) helicopter was picking up a group of kayakers at the confluence of the Tulsequah and Taku rivers, about 60 nm south of Atlin, BC. A sling load of about 700 pounds of gear on the river bank was attached to the long line before a decision was made to return the passengers to the Tulsequah Chief Exploration mine camp before flying their gear out. The helicopter took off with four of the passengers, but crashed into the river when it came to the end of the long line which had remained attached to the aircraft. Two passengers received minor injuries and the helicopter was destroyed. (Date amended to Sept 3 0035Z)

2006P1728 2006-09-01 19:30 (-7, **12:30**, S) Day-time 20 NM W of Beaton River, BC British Columbia

A06W0161: The Rotorworks Robinson R44 helicopter, registered as C-GZXA, was lifting off from a well site near Beaton River, BC. As the aircraft was pitched forward to gain forward speed, there was a loss of main rotor RPM. The tail rotor struck trees, followed by the break-up of the tail boom, and the rest of the fuselage settling through the trees to the ground. There were no injuries to the pilot or passenger.

2006P1805 2006-09-19 14:00 (-7, **07:00**, S) Day-time Approx. 75 nm N Terrace (Alice Arm) N5528.749 W12929.544 British Columbia

C-GSLV a Bell 206 being operated by Quantum Helicopters crashed in the vicinity of Alice Arm. Three SOBs, all suffered fatal injuries. TSB and Minister Observer will be attending the scene. No details are available at the present time.

A Bell 206B helicopter (C-GSLV) crashed on a tidal flat in the vicinity of a remote operating location on Alice Arm, BC (75 NM North of Terrace). The helicopter was destroyed and there were three fatalities. TSB personnel have been deployed to the site.

2006P2031 2006-10-26 00:00 (-8, **16:00**, W) Day-time Knight Inlet - Coordinates 51.04.73N 125.35.15W British Columbia

UPDATE / Add Info from TSB: A06P0224: The VIH Bell 206B helicopter (C-GWUF) rolled over during a toe-in pick-up of 2 passengers. The pilot was seriously injured and the passengers received minor injuries. The helicopter was substantially damaged. (Class of Investigation is being assessed.)

UPDATE from Commercial & Business Aviation: The 1000+ Hours pilot had landed on a rudimentary log pad on a hillside to pick up two persons. One had entered the helicopter and secured himself, and whilst the second person was about to enter the helicopter was struck by a strong gust of wind from behind. The pilot was unable to control the yaw and tumbled off the pad ending upside down on the hillside. The second person who had jumped clear returned to the aircraft to remove the two within. The pilot

received a blow to the helmet and lost consciousness for a number of minutes. The three persons were hoisted aboard a SAR Cormorant around midnight and flown to Comox. The pilot had received Company training in mountain flying, confined areas, and hover exit. (Events Changed to Weather-Turbulence & Overturn)

2006P2324 2006-12-05 18:45 (-8, **10:45**, W) Day-time Near Chetwynd, BC
(30 NM SE) British Columbia

UPDATE / Add Info from TSB: A06P0265: The Buffalo Aerial Services Ltd. Bell 206B, C-FJRH, was working approximately 30 nm southeast of Chetwynd, BC in clear and calm weather. The helicopter approached a clearing for landing in an area that had 2 to 3 feet of snow cover. The pilot compressed the snow several times with the skid gear and when satisfied that the snow had been compacted, reduced the collective to settle the helicopter for shutdown. When the pilot opened the right door to check tail rotor clearance, the helicopter rolled to the left. The main rotor blades struck the ground and the helicopter came to rest on its right side with substantial damage to the nose, engine deck, tail boom and main rotor blades. There were no injuries to the pilot or two passengers who were seated in the front and rear left seats. The pilot contacted the company via satellite phone and when arrangements were made for pick up, the ELT was shut off. There was no post impact fire.

2006P2334 2006-12-09 17:30 (-8, **11:30**, W) Day-time Trout Lake (Galena
Lodge, near Revelstoke) British Columbia

The Bell 206 was landing at Galena Lodge, at an elevation of 7,500' ASL, in support of a heliski operation. The helicopter landed on a snow dome and after landing it broke through the crust leading to a rotor strike and roll over. The helicopter was substantially damaged but none of the occupants were injured. Snow was falling heavily at the time of the occurrence.

UPDATE / Add Info from TSB: A06P0263: The Alpine Helicopters Bell 206L-3, C-GALJ, was engaged in heliskiing operations at Trout lake near Revelstoke, flagging areas for another helicopter to drop off skiers. The helicopter was landing on a 7,500 foot dome when it suddenly pitched up and rolled over, sustaining substantial damage. Heavy snow was falling at the time. There was no fire. None of the three occupants were injured.

2006Q0295 2006-02-13 16:30 (-5, **11:30**, W) Day-time Ottawa/Gatineau
(CYND) Quebec

At 1630Z, at Gatineau airport (CYND), helicopter C-GLMD carrying an underslung load was flying at low altitude in a westerly direction, south of the runway when it struck some trees. The load was destroyed, but the helicopter landed without any apparent damage.

2006Q1245 2006-06-27 12:50 (-4, 08:50, S) Day-time Pourvoirie Mirage - La Grande-4 (CYAH) Quebec

Les Hélicoptères Whapchiwen Bell 206L C-GMHY was on a lake with the engine running. The pilot was manoeuvring along the edge of the lake to let off a logger who was to cut down some trees so that the other passengers could get off. When the main rotor touched a tree, the pilot immediately moved away from the shore and stopped the engine. Preliminary inspection showed that only the tip of one blade had been marked by the impact. The tip serves as a cover to close the blade balancing compartment. The operator is awaiting clearance to ferry to the maintenance base, where the aircraft will be given a special inspection regarding sudden stoppage of the main rotor before it goes back into service.

2006Q1357 2006-07-11 15:40 (-4, 11:40, S) Day-time Station Nord, 5NM au sud de la position la plus au nord

According to the TSB #A06F0106: The Bell 212, registered C-FTAG, had been assigned to drop off passengers at a location 210 NM NW of Station Nord. On the return flight, the helicopter encountered reduced visibility due to fog and landed approximately 6 NM West of Station Nord. After waiting 24 hours, the pilot saw a clearing and felt the weather would allow him to travel to Station Nord. Shortly after passing a reference point which was actually closer than expected, the pilot lost all visual references. The pilot attempted a turn but the left skid contacted a snow bank at about 40 knots which caused the helicopter to roll over and crash onto its right side. The pilot was not injured. He was able to contact Station Nord via satellite phone and was rescued by snowmobile about 6 hours later. The helicopter was substantially damaged.

2006Q2238 2006-11-20 18:06 (-5, 13:06, W) Day-time 4554N/07341W (Hélicraft) Quebec

C-FZQF, a Schweizer 269 helicopter operated by Hélicraft, was preparing to conduct a local visual flight rules (VFR) flight from the company facilities' apron. Shortly after takeoff, the aircraft rolled onto its side. The pilot and passenger did not seem to be injured. The aircraft was substantially damaged. The Trenton rescue coordination centre (TR RCC) and the Transportation Safety Board of Canada (TSB) were notified.

Update #1: The TSB occurrence number and class of investigation were added. According to the TSB report A06Q0187: The Schweizer 269C helicopter, registered C-FZQF and operated by Hélicraft, was taking off from the company's helipad with one pilot and one passenger on board, for a recreational flight. During the transition to hovering, the aircraft started to spin around itself to the right. The pilot tried unsuccessfully to regain control of the aircraft by slamming on the left pedal. The engine power did not decrease, and after several turns, the helicopter crashed on the helipad before coming to a stop on its left side. The tip weights of the 3 main rotor blades came off during the roll-over. One of them crossed through the cabin of an R22 helicopter parked on the helipad, and became stuck in a plastic container located approximately

100 ft away. Another one went through the wall of the company's hanger. The third was not found. Nobody on the ground was injured, and the two occupants were unharmed in the accident. The examination of the aircraft's controls did not reveal any pre-accident anomalies. The throttle engage switch was in the "HOLD" position, and the belt tensioner that transmits the engine power to the transmission was in the semi-stretched position. The aircraft took off even though the throttle engage switch was not in the "ENGAGED" position, and the clutching was not complete. While hovering, the turns of the main rotor and tail rotor diminished. The decrease in turns led to the loss of yaw control. When a loss of yaw control occurs while hovering, it is recommended to cut off the gas and conduct an auto rotation.

2007C0121 2007-01-09 18:10 (-7, **11:10**, W) Day-time Grande Cache
(CEQ5) Alberta

The Pacific Western Helicopters Eurocopter AS 350 B-2 helicopter, registration C-GBKV, was being relocated from a landing pad at the company base in Grande Cache to a nearby parking area. Visibility was about 0.7 statute miles in falling dry snow and there was approximately four inches of dry snow on the ground. After lift-off the pilot established the helicopter in a hover at 15 to 20 feet above ground. In conditions of blowing snow, the helicopter moved forward and to the right and then down. The helicopter then struck a four-foot high snowbank and the main rotor blades struck the ground. The helicopter came to rest upright; however, it was substantially damaged. The pilot sustained a minor injury. There was no report of a system malfunction.

2007P0078 2007-01-07 16:00 (-8, **08:00**, W) Day-time 68 NM NW of
Smithers, BC British Columbia

Heli-skiing operations were being conducted with a Eurocopter AS-350-B2 (C-GTPK) operated by TRK helicopters at a remote location NW of Smithers, BC. There were six passengers plus the pilot on board and the operation was taking place in treed areas due to reduced visibility in falling snow. The helicopter landed at a flagged drop-off point but the pilot lost site of the marking flags due to snow blown up by the rotor downwash. The helicopter settled into deep snow while the pilot continued to use power to partially support the weight of the helicopter. While the ski guide was unloading equipment it was pointed out to the pilot that the main rotor blades were contacting the tip of a small tree estimated to be 0.75 inches in diameter. The passengers disembarked and the pilot relocated the helicopter to a more suitable landing site down the mountain. Upon inspecting the main rotor blades after shut-down, small creases were observed on the bottom side of the blades and the trailing edge exhibited signs of delamination. It was decided not continue flight operations until the blades were replaced.