# Speaker: Bruce Melnick

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My name is Bruce Melnick. I retired as a commander from the Coast Guard as an aviator and Coast Guard Astronaut number one, in 1992. I think I had one of the most amazing careers and I feel like I'm one of the luckiest people on this planet. You know if I just zeroed in on a few of the SAR cases I've been on and most of the ones that were most noteworthy to me and exciting to me, were in Alaska. I could talk about four of them. I mean I was on the Prinsendam mission, where there was a Dutch ship from Holland, America cruise lines called the Prinsendam, where I was the SDO that night and we got a call, and the radioman thought the name of the boat was the "Prince and Don" and I said, "Wow. That's ..." and he said, "It's on fire and it's out here somewhere." So I ran over to the radio room and then I was aware of the cruise ship Prinsendam, how it used to come into the port of Sitka, and so I said ... I can't remember the name of the radioman's name. I'm sorry.

I said but, "That's the Prinsendam. That's the big cruise ship and they're on fire." So we talked to RCC and Juno and we launched out, flew out there. They were probably 180 miles away and when we got out there they were listing seriously to starboard and they thought they had the fire out, and then all of a sudden the fire erupted again and the captain of the ship ordered them to abandon ship. When they started to abandon ship, they had all kinds of problems and it was dark at night, and it wasn't real bad weather yet. There was like a 10-foot swell, but it wasn't real bad yet. So we used the night sun on the H-3 to illuminate the people abandoning ship and we were there until just about everybody got off the ship, and then we were low fuel. By this time, the rest of the resources were being called in. The Canadian Forces, the Kodiak Coast Guard, the Elmendorf Air Force Base. I mean we had alerted everybody and we flew into Yakutat for fuel.

We got into Yakutat, we refueled and came back out and by that time, there was a C-130 on scene, some other forces were on scene and the winds had started to pick up real bad. About the time we got on scene, the rest of the helicopters had to go back in for refuel. Now the seas are you know, 15 feet, wind blowing and we looked down and we called back to the on scene commander and said, "We think we need to start hoisting these people," because the tanker Williamsburg, great big, super tanker was out there and they were trying to get these people over to the side of

the ship, the big tanker and climb up the Jacob's ladders to get up onto the deck of the ship and the average age of these people was 70 years old.

So we said, "We think we need to hoist these people," and I'm not going to mention any names, but he was a senior officer from our air station said, "Whatever you do, don't hoist those people." Joel Thuma was the aircraft commander with me and he was in the left seat at this time, because we had swapped seats, and he says, "Oh ... you're breaking up. I think we're going to go ahead. I got you, we're going to start hoisting." So we ended up starting the hoisting routine and everybody at the PJ started jumping in. Make a long story short, by the time my day was ended, I'd picked up 115 of the survivors, made multiple trips back and forth to the Williamsburg. At one point they had 24 survivors on the helicopter at one time, and then we took a load back to the Yakutat and anyway, we ended up picking up ... we had 522 saves that day. I picked up 115 of them. Great mission and I can talk about that at a great length.

Had another mission where we got a call, end of a duty day, that a Roman Goose, kind of like one of the ones that we saw at the Naval Aviation Museum yesterday, had ditched in the Gulf of Alaska. Rough seas, wind blowing, we went out looking for it. Very hard to find. All he has was an ELT and was talking over his ELT and we tried to zero in on it with the terrible ADF that was in the H-3 and finally, we got close enough to him. By the time we got there, they were really ... It was dark, wind was blowing, icing conditions up above and we're able to hover over them and when we got on scene, there was one person up in the cockpit who was talking over the ADF, and he was actually flying the Goose into the wind because they had ripped off a pontoon on one ... a float on one side and broken an engine off on that same side and every once in awhile ... And we could see a guy out the back hatch bailing.

So the airplane was sinking, and so we looked at the situation and we started talking about what they were doing and we found out that the pilot was actually flying the Goose into the wind, into the seas and every once in awhile they'd take a big roll and the wing without a float on it would dip into the water and start to roll over and the guy that was bailing, would jump out of the airplane, run up the fuselage, get on the other wing and get the other wing down in the water where the float was in the water. We were watching this as we were getting prepared to hoist and so I told the flight mech in the back, I said, "Okay, we're going to have one shot at this. We're going to have to do is lower the basket. We'll lower a trail line to a trail

line hoist," we briefed the airplane, "We're going to lower you a trail line. Pull the basket in and when you think you've got the airplane as stable you can, say, 'go' and you who's flying the airplane, jump into the basket and then you that's bailing, jump in the basket with him and we'll snatch you out of there."

So that's what they did and they got in the basket and we snapped them out of there and there was an HF antennae that we bumped into a little bit and we got them in the cockpit. By the time the crewman had them strapped in their seats and was ready to close the cabin door, say, "Ready for forward flight." That Goose, the wing had dipped down, rolled over and was going down in the ocean. Gone. One of the most demanding flights I ever had, was an airplane that crashed up near ... again up near Yakutat. I think it was called, Icy Bay. There was an Icy Bay up to the North West of Yakutat and again, an ELT had gone off.

A commercial airliner flying over from Anchorage to Seattle said: "Hey I've got this ELT going off down here, but it's only intermittent." So again, end of the duty day. We take off and we fly up there and we can ... As we'd fly down the face of the mountains, we could hear an ELT intermittently. Like, would fly along and then all of a sudden, bing, bing, bing, and then disappear. Still daytime, and what happens up there in the mountains of Alaska on the Gulf of Alaska, is the moist air would come in from the ocean and it would start to lift up over the mountains and when it got high enough it would condense and make a cloud. This cloud layer would literally come down, you know to like 400 feet above sea level and raise up to 1,000 feet above sea level. Just maybe it could do that in just over a minute, could go up and down. So we could hear this ELT. We started to zero in on what ravine that ELT was in. Of course, we had no com with anybody, just figured that that was where the airplane, overdue airplane was.

One time, just fortunate for us, we're sweeping by this ravine and the clouds rolled up and our crewman said, "There it is!" It was probably up about 1,000 feet and I said, "Mark that ravine. Remember where that is," because the pilot ... I was in the pilot's seat, had a co-pilot, and the co-pilot as it turns out turned out to be Vice Admiral Currier. He was my co-pilot. He was one of my early on students in the H-3, and you know he became quite famous and one of the greatest aviators in Coast Guard time. Anyway, we did a lap around and by the time we came around, we couldn't see it again. The cloud had come down about 300 feet. So we did another lap waiting for the clouds to go up and they were going up, you know 500 feet, down 300, but never did we see the airplane again. So we said, "Okay. What are we

going to do?" So I said, "Well why don't we ... I'm going to go stick the nose in the ravine and we'll just kind of climb up in the ravine with our nose in it until we get to them and see what we can do."

Well, that's what we did. We're climbing up in this ravine and it is very steep, very narrow, and finally we see the airplane up ahead of us and we're not that far back from it, so we climb steady up, steady up, and for us to get directly over that airplane, our nose was pretty close to the side of the mountain, and our rotor blades were hitting some of the trees just the tops of the trees, and we had had to let out over 230 feet of hoist cable and I think the limit was 250, to get the basket down to this guy. He's got a compound fracture, his bones are sticking through his leg, and we lower this basket down and he's kind of just hanging on, laying on the wing. He was able to get out of the cockpit, and we didn't have rescue swimmers back then. Never had rescue swimmers during my tour. So we lowered our avionics man down, which is one of the things that we used to do since we didn't have rescue swimmers, and we knew he couldn't get in the basket. So we lowered the avionics man down.

He helped this ... He's a big guy. He was probably like 6'4" 240-250, get him in the basket and steady it enough to where now the crewman's trying to hoist him up and he's trying to guide the basket around all these Devil's club and the plane, and he doesn't have the arm strength to maneuver it and I'm stuck. I can't go anywhere, because left or right, I'd hit more trees. In forward, I'd hit the mountain. So I'm sitting there hovering. John Currier, my co-pilot, he says, "I'll go back and help him." So sure enough, John gets out of the left seat and he goes back. Now I'm sitting up there by myself, you know hovering in trees in the fog, can't see anything. John goes back, and they get this guy up and they finally get him up and load him into the cabin and get him strapped in, and he was in pretty dinged up shape. had lost some blood, and so we get him back in and about that time, our avionics man slipped off the airplane and disappeared into the Devil's club.

So our hoist man just lowered the hoist back down into the Devil's club and I said, "Okay, we'll just leave it down there for about 10 seconds," because now we're starting to get a little skosh on fuel. I said, "Leave him down there for about 10 seconds. Give him time to climb in the basket and we'll go one, two, three, pull him out and see if he's in it. Kind of like fishing." So sure enough, he pulled him out and here's ... I think it was A.T. Rebo. I think his name was Rebo. He comes ... it pulls up through the Devil's club, and he comes back up, and the Devil's club is nasty stuff in

Alaska. So we bring him back up and then we get him in the helicopter and he gets all dusted off, gets the basket all put away, ready for forward flight. But now we're sitting here hovering in the face of a mountain, in a cloud. We didn't know how high the clouds went, or how high the mountain was. So my only option was to back straight out until I couldn't see anymore and backed a little bit, hold my altitude and then do a 180-degree pedal turn and do an instrument take off out of there and fly back out over the ocean.

Then we landed at Yakutat with a low fuel light. Great mission. Good mission. Then the fourth one, I think this is four, was the only time I've ever been scared in my life. That was a mission down in Waterfall Cannery, Alaska. We had a call for a woman that was in her eighth month of pregnancy and she was losing a lot of blood and you know, really in bad shape. We had an RCC controller with us that was standing duty with us that night to see what kind of conditions we were flying in, and this was a nasty, sleety, icing 500 feet and above, windy, rough down below. So you had to fly down, and our radar back then ... we didn't have this fancy color radar. We had these old radars that anything less than a half mile away was in the sea return. All you could see is a big white blob or green blob.

Well, we got this call and we said, "Okay well let's take our flight surgeon with us." Marty Nemiroff was his name, never forget, and our plan was ... because we said, "Hey can we land on the dock there at Waterfall?" He said, "Oh yeah. We've had helicopters in here all the time." So we're going to take him, we figured worst case we'll get down there, land on the dock and the doctor'd get out, assess they situation and you know if the weather was too bad, we couldn't get out of there, we'd just shut down for the night, and the doc would take care of the patients. Well, so we took off, we get down there and I had with me a brand new ... he wasn't a brand new pilot, he was brand new to Sitka. A pilot named Gary Pole. I was the aircraft commander, but he was not South East Alaska qualified or certified yet. He came from Kodiak, so he was Alaska qualified, and there's a lot of qualifications that go into flying in that mess, in the equipment we flew.

So one thing about Coast Guard standardization is you know if the guy's a pilot, he knows exactly what you're saying. We always said the same commands, we always talked the same language and there was never a doubt with what you were saying. Coast Guard standardization beats anything I've ever seen and I'll talk a little bit about being with NASA after this, but so we jumped in the plane. I said, "Gary, you're going to fly in the right seat, pilot's seat, and I'm going to navigate because I

know where we are and what we're doing." So we skud run, upside down skud run, we come down underneath the clouds so we couldn't ice up, all the way down to a place called Bucareli Bay. It was a big bay that was curved like a what do they call it? A cornucopia thing? But it gets narrow at the end, but about halfway up there is where the inlet to Waterfall was, and it was just a very narrow inlet. So our plan was, it was raining and sleeting and everything, I said, "We'll follow the buoys in Bucareli Bay," because it was a navigation path, and we'll stay in the buoys and we see water ... the lume of the lights of Waterfall through the rain, and the mist underneath. We'll turn towards the lights and just fly towards the lights. So we know nothing's in between us.

So that's what we do. We're flying about 200 feet, then we have to get lower because we have to see the buoys. So we're like 100 feet off the water, flying in Bucareli Bay, sleeting, whatever, and all of a sudden I'm looking at ... And I'm looking at a chart. You fly up there with your hands over the glare shield like this, so the pilot can still see the instruments and I could still look at the chart up ahead of me of where we were, and keep track where we were going visual. All of a sudden. Something didn't look right. I said, "Gary, get me a left 360." Here he's never even stood duty with me before, and he gives me a perfect left 360, 100 feet above the water, because I wanted a few seconds to figure out and I said, "Okay, I know where we are," and we kept going up the channel and a couple buoys later we see the lume of the lights. It wasn't much, it was just a glow way in the distance. "There's Waterfall, so let's go in there."

So we get into Waterfall and we get close. Now there's lights and docking, you see people out there happy to see us, waving. So we go land on the dock. They clear the dock off for us and we start to lower the collective, so that the flight doc can get out and as we start to lower the collective so he can get out, all of a sudden helicopter starts shaking and the whole dock's shaking and I went, "Whoa! Gary put a little more power," because again, I'm sitting over in the left seat and I said, "Man, this thing ... this dock's not going to hold us." And I called the guy on the FM radio. I said, "Hey, I thought you said you land a lot of helicopters here," and his answer was, "Yeah, nothing ever that big." So that dock wasn't going to hold us for five minutes. So we had to sit there with pitch on the collective the whole time, pretty much flying on the dock.

The flight doc gets out and he goes, and he comes back and he says, "She's got to go to a hospital tonight or we're going to lose her. There's no ... I can't treat her

here and we got to try to get back." So now what do we do? We knew what we just flew through getting back, and so we load the patient up, get her onboard and I'm sitting there and the guy on the FM radio at Waterfall says, "Coast Guard, what are you waiting for?" And Gary says, my pilot, he says, "Yeah Bruce, what are we waiting for?" I said, "I'm trying to figure out how to get the hell out of here." You know, because I ... If you looked up this little canyon we came through, the radar was just going to show bright white. So I started looking at the chart real close and it was almost due North out of that little cut, and we did have probably a couple hundred yards on both sides of us if we didn't slide one way or the other. It was almost exactly a mile from the dock to the middle of Bucareli Bay, and Bucareli Bay at that point was probably a couple miles across.

So I said, "Here's what we're going to do Gary. We're going to jump off the dock, and you're going to do a pedal turn and you're going to head due North over the water and as soon as I say go, I'm going to hit the stopwatch and you're going to accelerate as fast as you can to 60 knots and at one minute you're going to turn left, and if you turn left and the radar opens up to where we can see Bucareli Bay and fly out, we'll fly out and go home. If not, we'll keep the turn coming and come due South back to the lights of Waterfall," and it was amphibious airplane at the time, "We'll disembark everybody and we'll land in the water and spend the night and figure out what we're going to do tomorrow, or when the weather clears." So, off we jumped off the dock. "Go." Hit the clock, one minute, Gary turned left, Bucareli Bay opened up on the radar, flew home and saved two that night, but that was ... That left turn, I can honestly say is the only time I've ever been afraid in my life. It was amazing.

So, getting on to other things. After I left the air, I mean I had ... There was four great missions I was on, then I was lucky enough to be selected to be the flight safety officer and chief pilot for the procurement of the H-65 at the APO Grand Prix, Texas, and I did that for four years, and did a lot of the developmental and acceptance test flights of the H-65. Wrote the flight manual for it and then after that, I left Travers City ... Left the APO and went to Travers City, and I was only there for a year when I got selected for the astronaut program. This is where I was lucky to be a Coast Guard Aviator to start with. Lucky to have some of the great missions I had, even luckier to be with the people I was. But when I think back about 1961 when I was in 6th grade and saw that Alan Shepard flew, you know 55 years ago, since that time there's only been less than 550 people fly in space, and I got selected after trying for nine years. I got to do it twice.

The year that I was selected, there was over 4,600 qualified applicants and 120 of us interviewed and they selected 15. So, and I want to tie this to the Coast Guard at the end because I think it's very cool. So with the Astronaut Corps, went through the training. It takes three years to train, two years of basic training and then if you get selected you go into a full year of training with your crew. My first ... So I got selected right after my two years of training and a year later I got to go down to the Cape and fly. Four-day mission, perfectly executed. Up and back. Deployed the satellite that went into a polar orbit around the sun, called Ulysses. Did some experiments, but it was a textbook mission. Everything went perfect, came back and landed. I had trained for a space walk, and that's one thing I always wanted to do was a space walk, once I got to that far. I trained for one, but there was no need to do one on that flight. So I figured, okay I'll do it on my next flight.

So I come back from that flight, had a great time. You know, by the way, I just want to interject in here, one of the neatest things about becoming an astronaut, other than just the astronaut part of it was, is that NASA had a deal with the military that if the military would loan them their pilots, they would ensure that we maintained our flight proficiency in case the Coast Guard or whatever military service needed us back. Well, I got there as a Coast Guard helicopter pilot and the only aircraft they had to maintain my flight proficiency was a little supersonic T-38 jet. So I got to be checked out in a T-38, and I had my own little jet to fly around the country and you know I was there five years and had a thousand hours in it, which was pretty darn neat.

So moving on to the bit of the relationship to the Coast guard, was that not too much time passed and the chief astronaut calls me up and says, "Hey Bruce, how would you like to be with me on my crew on STS-49? STS-49 was going to be the premier mission of all times because it was the first flight of Endeavor, the space shuttle that replaced Challenger, and secondly, the mission was to go up and capture a satellite that was in the wrong orbit. Carry up to a rocket motor in the payload bay of Endeavor, grab the satellite, bring it in the payload bay, hook up another motor to it and kick it out of payload bay and send it up to the right orbit. So I mean everybody wanted to do it. It was going to be loaded with spacewalks, and it was called the Intelsat Rescue Mission, which I thought was kind of ironic, being a rescue pilot.

So when Dan Brandenstein called and he said, "Hey Bruce, how would you like to be with STS-49?" I said, "God that's great Dan! I'll get to do a space walk." He goes, says, "Well not so fast. I've got some good news and bad news." He says, "I really want you on STS-49, going to be a great mission, but I'm going to let some of the other crew do the space walk because I want a Coast Guard helicopter pilot on the arm." He said, "This is going to be the most challenging mission with the Canadian arm," and he said, "The hand eye coordination that you guys have is going to be what we need and you've demonstrated you're a great arm operator." He says, "I need you on the arm. I want a Coast Guard pilot on it. Helicopter pilot on the arm." So, as good as the Coast Guard was to me, it kind of hosed me out of a space walk at the end. Anyway, it's been quite a ride. So I spent between, you know the 20 years with the Coast Guard and NASA. You know I can't imagine anyone ... I mean I just had a great career and it's so much fun to be back here on the celebration of the centennial of our aviation and 50 years at Mobile.

I get to go out to Mobile today. It's just been great and I tell you, it's been nothing but a great ride for me. I hope a lot of other people have as much fun doing it as I did.