

Suffern Paul

From: [REDACTED]
Sent: Friday, September 3, 2021 2:50 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: CIP and FIP (IPA?) products... for 8/16/2021 accident (near crash) in Alaska
Attachments: [REDACTED]

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Hi Paul,

After a quick analysis, I think SLD is very likely in this case. Sorry for the high-latitude mercator projections, but that's the only way I can get the satellite RGB to show up properly and I wanted the maps to all be the same projection.

- Radar: I only had the low-level composite on hand, but it shows pockets of 20 to 30 dBZ. I'm not much of a radar meteorologist but I would interpret that as light to moderate precipitation.
- Satellite: Big blue cloud deck in RGB indicates liquid with temps ~ -20C so definitely icing of some sort. The red areas are high cirrus, and the green are ice-topped clouds which become more orange as the clouds get deeper/taller. Purple appears in some places--these are very thin cirrus over the blue liquid cloud deck. Big parallax here, so keep in mind everything appears North of where it actually is in these images. That puts the location of the incident near the edge of that green cloud. I think you're likely to see a "microphysical mess" there with small drops, large drops, rimed ice, etc.
- Model: I'm showing the column-max mixing ratios (T<0 only) from the 2-hour forecast valid at 23Z here and they definitely agree with the microphysical mess suggested by the satellite. The model tends to underproduce rain water, so the fact that it's showing up here is a strong indication there was SLD. You've got everything else also--cloud (small drops), graupel (rimed snow/ice probably), and snow/ice.

On Thu, Sep 2, 2021 at 11:55 AM Suffern Paul [REDACTED] wrote:

Thanks Allyson! Yeah, the cross section site is nice... but from what I've heard from pilots the processing, etc... takes quite a bit of time so a 1200 UTC polar satellite image might not show up till 1600 or 1800 UTC... great for post-analysis... but "real-time" a little more challenging from the pilot community... if the weather doesn't change too much, then useful if not, then more of a challenge

Paul

From: [REDACTED]
Sent: Thursday, September 2, 2021 1:51 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: CIP and FIP (IPA?) products... for 8/16/2021 accident (near crash) in Alaska