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Panel 3: Pilot Source Study 2015 & Discussion

Guy Smith
Moderator: Associate Professor, Embry-Riddle Aeronautical University

LaMar Haugaard
Panelist: Director Pilot Development & Recruiting, Horizon Air

Darrin Greubel
Panelist: Manager Line Ops, ExpressJet

Michael Dee
Panelist: Director Flight Training, Republic

Jeffrey Winter
Panelist: AQP Manager, JetBlue

See next page for additional authors

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Presenter Information

Guy Smith, LaMar Haugaard, Darrin Greubel, Michael Dee, Jeffrey Winter, and Jeff Panhans

Panel 3: Pilot Source Study 2015

Pilot Source Study 2015

- ➢ Dr. Guy Smith – ERAU
    - o *See ERAU PSS Smith PowerPoint Presentation*
    - o Introduction:
    - o This panel has two parts: a brief of the PSS 2015 & a panel discussion
    - o Charge to the panel: engage everyone involved in pilot training
    - o Concept of competence:should we be looking at something other than flt hours?
    - o PSS shows hours is not necessarily a measure of a pilots' ability to perform
        - ▪ Why do we use hours as a measure? Because it is easy

Part 1: Question for the panel: "From your experience, what are the competencies of an airline pilot that seem to be missing in current new hire pilots?"

- ➢ Capt. LaMar Haugaard - Horizon
    - o When we went to university campuses we highlight the importance of professionalism (Story of first officer going across flight ramp on a skateboard)
    - o AQP Qual
        - ▪ Difference between individuals from AABI/Aviation schools and pilots coming from everywhere else
        - ▪ Visual approaches
            - • If you put students on a Cat 3 approach they're fine
            - • If you put them on clear skies visual approach they have an issue because they are too used to automation (Asiana crash)
    - o What employees are looking for from a company competency
        - ▪ We're able to engage our new pilots in community service

- ➢ Capt. Darrin Greubel – ExpressJet
    - o Where people struggle
        - ▪ (Echoed LaMar)
        - ▪ We do see some unprofessionalism
        - ▪ A young man showed up with a man bun on his head for training
            - • Keep working on professionalism and educating
            - • It has to start at the school house, lead by example
        - ▪ Quality over quantity
        - ▪ Sometimes people who flew a while ago try to jump back into flying; they got out and can't make it back in because no recent experience
- ➢ Capt. Jeff Winter – JetBlue
    - o First you have to look at where your pilots come from
    - o We get pilots first from regional airlines, then…military, charter, and corporate
    - o We screened someone we loved but only had 2700 hours
        - ▪ Can't compare flight hours to the way colleges use SAT scores
    - o As soon as a pilot fails an event I get an email
        - ▪ Most failures we see have high hours (15,000 or 9,000)
        - ▪ They know how to fly the plane but don't fly the way the airline wants.

- Pilots tell them they are working extremely hard to undo all the bad habits they have accumulated
  - When you get to JetBlue you can fly; struggle is procedures, CRM, automation
    - Training is a limited amount of time due to financial restrictions.
    - At JetBlue we use self study training, they are expected to have a working knowledge from the beginning, no spoon feeding lectures
    - Pilots get behind early and can't catch up
- Capt. Michael Dee - Republic
  - First thing to undo is the attitude and bad habits from other airlines
    - They didn't come to Republic because they were stars at PSA or Envoy
    - They met the requirements so they're there
    - We have to undo negative attitude
    - People coming through colleges think that 25hrs of multi engine is more than enough to understand the single engine operations of a loaded ERJ
    - Breaking down the knowledge barrier
    - Last thing to build up is automation
      - Pilot has to know programming, the FMS, etc.
      - Pilots from GA don't understand the levels of automation yet
      - We've tried create a massive knowledge of automation so you know where it's going or why it isn't… then get the CRM to figure out why it isn't working
- Capt. Jeff Panhans - Allegiant
  - We tell pilots there is a shortage, and we get a lot of new guys showing up that don't necessarily want to put the time in required for intensive training
  - We see part 91 pilots struggle
  - We have military pilots that have difficulty transitioning to commercial aviation

Part 2: Brief of Pilot Source Study 2015
- Introduction – Dr. Guy Smith - ERAU
  - Timeline of legislation and consequential events
    - Colgain Air 3407
    - ANPRM – Pilot Source Study 2010
      - Outcome: Pilots between 500-1000 hours had fewer extra training events and non completions
    - NPRM – Pilot Source Study 2012
      - Outcome: pilots between 1000-1500 had fewest extra training and non completions
    - Public Law 111-216
    - 2015 Pilot Supply Summit – Pilot Source Study 2015
  - PSS 2010 and 2012 were convenient sample studies
    - Only a select number of airlines that were receptive to work with collegiate aviation
  - PSS 2015
    - Population study: included all of the U.S. regional airlines
      - Airlines invited us after a briefing at RAA
      - Included 3 airlines operating under part 135
    - Data included all pilots hired after August 1, 2013
    - List of airlines involved (see presentation)
  - PSS 2015 Methodology

- Non Disclosure Agreement with airlines that stated we would not share the data and pilot identification with anyone
- Deidentify the data: strip age, gender, pilot id, etc.
- Used data collection protocol (see presentation for details)
  - Match application records and training records
- 22 Regional Airlines, 6734 pilot records

- PSS 2015 Results (Dr. MaryJo Smith)
  - Effect of PL 111-216 and FOQ law on pilot hiring and training?
  - Outcome variables: non completions, extra training, IOE training, extra recurrent
  - Source variables: education, AABI flight degree, total time, certificates held, predominant employment
  - 29% of the pilots needed extra training
    - More extra training was performed than was captured in pilot records
    - Keep in mind the data is under represented
  - High School graduates needed more training and had more non completions
  - Associate degree graduates had more non completions, more extra training, and extra IOE
  - AABI flight degree pilots needed less extra training, less extra IOE time, Less extra recurrent, and fewer non completions
  - Aviation degree pilots needed less extra training, less extra recurrent, and fewer non completions
  - < 3.0 GPA needed more extra training, more IOE, and more extra recurrent
    - Pilots may not have always included GPA in their resumes or applications (38% of pilots)
  - Pilots who graduated between 2010-2015 had fewer non completions, less extra training, less extra recurrent (than those that graduated before 2010)
  - Flight instructors had fewer non completions
  - Part 121 pilots had less extra training, less extra IOE and less extra recurrent
  - Pilots without a CFI had more non completions and more extra training
  - Military pilots required less extra training
  - R-ATP pilots had fewer non completions, less extra training
  - Pilots with <1500 had less extra training, fewer non-completions, and less extra recurrent
  - Pilots > 4500 had more non completions
  - Chi Square multi variable (see presentation for images with results)
  - Effect Size
    - The gap that increased due to public law 111-216 reduced the effect size of academic training
    - Largest effect sizes were years since graduation and total time (see presentation for total list of effect sizes)
  - Comparison between 2015 data and 2010/2012 data (pre law vs. post law)
    - Significant increase in number of extra training events in post law data
      - Post law pilots required more extra training
    - 95% completed training in pre law data, 83% completed training in post law pilot data
    - Cost Analysis for extra training events and extra non completions
      - Uses salary cost, training accommodation, simulator time, pro-rated costs from regional airline data.
      - Total estimated cost for non completions= $20,924,000
      - Total estimated cost for extra training= $3,960,000
      - Grand total: $24,885,263

- Return on investment to airline $0
    - o Conclusions
        - Aviation degrees, GPA, AABI Accredited flight, College degrees do matter
        - Hours is not an accurate predictor of pilot success in training

PANEL CONTINUATION

Guy posed the question: "If hours isn't a good measure of pilot competency, what is?"

- ➢ Mike Dee - Republic Airways
    - o Was originally confused about why he had to fly so structured at ERAU
    - o Competency falls when student building own time, (College vs. Small operation)
    - o People who leave the structured environment tend to pick up bad habits
    - o Change of philosophy: fly the way that the company flies because they're the ones who made the structure
- ➢ Darrin Greubel – ExpressJet Airlines
    - o I agree with the earlier comment that recent experience is important
    - o Strong predictor: Structured training vs. unstructured
        - Immersed and structured environment tend to help transition into airlines
        - Those who haven't experienced that type of training are not as easily brought into the airlines
        - Quality recent experience is important… multicrew concepts, automation management, high workload environments, etc.
    - o Look at the type of training and the environment that the person was trained in along with looking at their previous recent experience.
    - o Answering question: "if not hours, then what?" is a broader stroke of paintbrush
- ➢ Jeff Panhans - Allegiant Airlines
    - o Moving to AQP and scenario based training
    - o We're focused on FOQA data
    - o Day 1 as a private pilot, students should be completing scenario based training and flying like a captain
- ➢ Peter Morton
    - o University aviation has a much higher safety record than GA aviation
    - o Type clubs such as the Bonanza and Cirrus (COPA) show what a difference type training can have; manufacturers and clubs created disciplined training practices
- ➢ LaMar Haugaard –Horizon Airlines
    - o It's easier to define what disciplined flying isn't
    - o We have seen a degradation of skills; which is why we've been a huge supporter of pilot source study from the beginning
    - o Pilots from 141 and 142 structure did outstanding in our training
    - o Other pilots just did anything to gain hours: traffic work, aerial surveying, banner towing, etc., and they did much worse
    - o Because pilots from university programs had such structured flying as a CFII or an MEI they transitioned seamlessly into our training at a 121 airline.
- ➢ Jeffrey Winter – JetBlue
    - o Experience matters, but it isn't the only thing. All experience is not created equal
        - 5,000 hour pilot that worries me is the one who flew the same 100 hours, 50 times. The pilot just got comfortable
        - The JetBlue program controls every minute of their training and flight time from beginning to end, which makes for a structured environment… no guesswork in where the hours and experience come from…

- ➢ Unintended Consequences
    - ○ What has it done to the quality of flight instructors?
        - ▪ Many pilots that don't want to be a flight instructor or aren't necessarily good at flight instructing end up getting a CFI to gain hours for an ATP
        - ▪ The way students are taught is the foundation for how pilots fly
    - ○ Is the extra time pilots gained negative value?

Discussion

Q: Kevin Comstock (ALPA)- Based on the data, the total time, the pilots hired after the FOQ had their CPL before the new rules. It seems they already had the qualifications to get hired before the rule… to me it was like they weren't hired for some reason prior to the law… something identified them and they were passed up… something showed they were going to require more training… why is not misleading to base conclusions on pilots hired now that weren't hired then and blame that on the new rules…

A: Guy Smith (ERAU) – We looked at pilots that were hired not why they were hired. Many came from 135 or 121 operation, why they came is not something we can conclude from the data. The important thing is that we looked at ALL of the pilots hired after August 1, 2013.

Q: Jason Gettinger (Gaetz) – ERAU Gaetz institute – The pilots that are not current or career changers. Why not give them a conditional acceptance, take a 141 job for a couple months and bring them back into the regional airline.

A: Darrin Greubel (ExpressJet) – If we identify someone with a regency gap, we'll provide additional time to brush up on their skills. Also, we may discontinue training and offer them a couple avenues to gain more recent experience and come back. Those who do; about 100% of the time will be able to come back and get up and running again… sometimes its just the underlying fundamentals that have to be repaired or brought back up to speed.