MEMORANDUM FOR RECORD

Investigator: Brian C. Rayner
Senior Air Safety Investigator
Eastern Region

Date: October 25, 2014
Reference: Interview Summary
Witness: Magdalena Lawson
NTSB Accident Number: ERA15FA025AB Frederick MD.

Narrative:

Mrs. Lawson was travelling in her car, west of the airport facing east towards the airport when she saw the helicopter hovering. She said the helicopter appeared stationary around 500 feet. She said it looked "exactly like the police when they are circling."

The airplane came into her view and was approaching the helicopter at about the same altitude. The airplane continued to move towards the helicopter and the helicopter still appeared stationary. Mrs. Lawson said she thought the airplane would turn to avoid the helicopter, but it never turned from its heading. She wondered aloud, "Can't they see each other?"

Neither the airplane nor helicopter changed altitude before the aircraft collided, and the helicopter "drifted" for a moment before it fell "straight down." About the same time, Mrs. Lawson saw the airplane's ballistic parachute deployed and fully inflated, and hoped it belonged to an occupant of the helicopter.

Mrs. Lawson said she watched both aircraft descend until both were out of her view. When asked, she said she couldn't hear either aircraft and thought that it was unusual that she couldn't hear them.

MEMORANDUM FOR RECORD

Investigator: Brian C. Rayner
Senior Air Safety Investigator
Eastern Region

Date: October 25, 2014
Reference: Interview Summary
Witness: John Phelps
NTSB Accident Number: ERA15FA025AB Frederick MD.

Narrative:

Mr. Phelps was a Flight Instructor for the operator of the accident helicopter, Advanced Helicopter Concepts. Commercial Instrument Helicopter, CFI Instrument helicopter. Total time is 750, all of which is in the R22 except for 5 hours in an R44.

He's been employed by the operator for 2years, and he's been instructing for 7 months.

Mr. Phelps was in the traffic pattern at FDK in a Robinson R22 helicopter, providing instruction to a student preparing for his first solo flight. They had flown in the traffic pattern for approximately 30 minutes prior to the accident.

At the time of the accident, Mr. Phelps said the student was on the flight controls, about 600 to 700 feet msl, turning to the crosswind leg of the traffic pattern, when he looked for the accident helicopter in the traffic pattern ahead of him. About the same time, Mr. Phelps noticed both the airplane and the helicopter and immediately thereafter, the collision.

Mr. Phelps said that the helicopter appeared to be turning from the crosswind to the downwind leg of the traffic pattern when the airplane appeared to fly through the helicopter main rotor disc in a wings-level attitude.

Mr. Phelps said the helicopter fell "straight down" immediately after the collision. At the same time, the parachute deployed out of the airplane.

Mr. Phelps said that the company did not have an SOP, but that they planned to publish one concurrent with their Part 141 Flight School application.

Mr. Phelps said that there was a safety meeting after a rollover event with one of their helicopters, but that formal, scheduled meetings happened on a quarterly basis.

Mr. Phelps said that the typical traffic pattern is flown to the downwind pattern altitude of 900 feet before turning from the crosswind to downwind.

When asked if there was anything that he would do differently if he were the operator, Mr. Phelps said no. He said that everyone got along, that his boss was receptive to ideas and differing opinions. He added, "I've never been scared here. I've never felt that we were doing anything unsafe."

MEMORANDUM FOR RECORD

Investigator: Brian C. Rayner
Senior Air Safety Investigator
Eastern Region

Date: October 25, 2014
Reference: Interview Summary
Witness: Keith Thornton
NTSB Accident Number: ERA15FA025AB Frederick MD.

Narrative:

Mr. Thornton was the Chief Flight Instructor for the operator of the accident helicopter, Advanced Helicopter Concepts. Commercial Instrument Helicopter, CFI Instrument helicopter. Total time is 1,600, all of which is in the R22 except for 25 hours in an R44, and a few in a Bell 206.

He's been employed by the operator for 2years, and he's been instructing for 1.5 years.

We just designated John Phelps as a Safety Officer. Mr. Thornton said he had begun to draft a Safety Management System program for the operator, but it was not completed. He said that periodic safety meetings were held. Mr. Thornton said that he or the owner would be "in charge" of the meetings, but that they were "free flowing."

When asked what sort of in-processing does a student go through, he said we "set up a file" go through hover practice, show them how to preflight, and some basic orientation that begins with a 30-minute introductory ride.

Then we start the ground sessions. I like to begin with the helicopter and then expose them to the academic work. The R22 requires 20 hours of flight experience as a minimum prior to solo flight.

I would change the patterns that we fly and make them tighter and lower. I would create a document that shows the traffic pattern, with designated waypoints, and have Frederick Tower to have radar.

He was asked about a consolidated "council" of the major operators on the field along with the tower to establish "course rules" and he thought that formalization would be a great idea.

Mr. Jenkins was already very experienced in the helicopter, was getting checked out, and was going to rent the helicopter, and then he and the passenger were going to go off and do another mission.

Mr. Parsons and Mr. Jenkins may have flown together in the R22, but he couldn't be sure.

Mr. Parsons had between 7-800 total hours of flight experience of which 75 hours were in the R-44.

Mr. Thornton was asked about the traffic patterns that were flown for Runway 30 orientation, and the altitudes flown. He differentiated between a "normal" pattern and "high-and-tight" pattern, and different altitudes for normal pattern, straight-in autorotation, and 180-autorotions.

Mr. Thornton drew the various patterns over an aerial photograph of the airport. He was asked if anything similar was used for briefing/orienting students and rental customers, and he said no.

Mr. Thornton said that in retrospect the traffic patterns used by the helicopters actually conflicted with fixed-wing traffic more than he originally realized.

The transition from uncontrolled to a controlled field went "extremely well." Air traffic control has helped de-conflict traffic much better than when it was uncontrolled.

MEMORANDUM FOR RECORD

Investigator: Brian C. Rayner
Senior Air Safety Investigator
Eastern Region

Date: October 25, 2014
Reference: Interview Summary
Witness: Neil Lanning
NTSB Accident Number: ERA15FA025AB Frederick MD.

Narrative:

Mr. Lanning was the owner/operator for Advanced Helicopter Concepts. He held an ATP airplane and helicopter, CFII Instrument helicopter. Total time is 11,000, 1,000 of which were in the R22 and 400 hours in an R44.

Mr. Lanning has been the half-owner of the operation since 1999, but worked with the company since 1993. The company employed 10 full-time employees and 3 part-time. The school flies 2,000 hours a year, which was almost exclusively rotary-wing time.

We were a Part 141 school at one time, but we are no longer because we didn't produce enough students to warrant it. From a personal standpoint, I like the 141 syllabus that part 141 requires.

The company has in-processing procedures, but there is no SOP, and no published procedures. There were syllabus sheets published for different certificate programs.

The tower has annual meetings.

Mr. Lanning said he attended a meeting at the tower approximately two weeks before it opened. There was discussion about a helicopter traffic pattern "opposite" of the fixed wing pattern, but the general consensus was that such a pattern, especially with regard to runway 30, would create more conflicts than it would resolve.

When asked how the traffic pattern altitude (TPA) of 900 feet was decided upon, he said, "It just kind of morphed into that. The airplanes are at 1,300 feet and we thought we should be below that. They never published that in the AF/D, and I wish they would."

The TPA altitude prescribed by the Airman Information Manual (AIM) was 500 feet above ground level (agl) for helicopters when no TPA was published. Mr. Lanning was well aware of that and stated that was why they chose 900 feet, saying that 900 feet was "about right." The field elevation for FDK was 306 feet.

We are going to a standard SMS as we expand. We are going to add risk analysis to the brief sheets.

I have a part time employee who is retired Coast Guard and an SMS course graduate to publish the SMS program. I would like to introduce it into the company in the next 30 days (November 30, 2014.)

We have safety meetings probably about once a month. Last time was when we had our little rollover event. Keith probably has the notes from that meeting.