

## Federal Aviation Administration – Flight Standards Service Lincoln FSDO Record of Events

Date:	July 26, 2020
Location:	Grant Municipal Airport
	342 Central Avenue
	Grant, Nebraska 69140.
Subject:	Benjamin Hoffman Interview in conjunction with N502KJ Air
	Tractor Accident near Grant, Nebraska on July 25, 2020.
Prepared by:	Robert L Markise

My name is Robert L. Markise, and I am an Aviation Safety Inspector (ASI) assigned to the Lincoln Flight Standards District Office (FSDO). The follow is a record of visit on July 26, 2020.

On July 25, 2020, at approximately 1615 CST, a brief phone conversation between Inspector Robert L. Markise and Pilot Benjamin Hoffman occurred in regards to the accident near Grant, Nebraska occurring early that day. A few general questions were asked and Inspector Markise encouraged Mr. Hoffman to write down as much as possible regarding the accident. Inspector Markise was meeting the airman the following morning.

On July 26, 2020 Inspector Markise and Mr. Hoffman met face to face at 1145 MST at the Grant Municipal Airport located at 342 Central Avenue, Grant, Nebraska 69140.

Pilot Benjamin Hoffman, pilot certificate number **sector** is a holder of a commercial pilot and flight instructor certificates. Mr. Benjamin Hoffman has approximately 3,700 hours of total time.

Pilot Benjamin Hoffman was operating an Air Tractor (AT-502), N514HB, aircraft associated with the Aurora Cooperative Elevator Company, 137 certificate number operating out of the Grant Municipal Airport (KGGF) on July 25, 2020. The accident aircraft, Air Tractor (AT-502), N502KJ was operating out of KGGF on July 25, 2020 for the Aurora Cooperative Elevator Company.

Prior to take-off, Mr. Benjamin Hoffman was comparing engine operating parameters with the accident aircraft/pilot. They were comparing ITT, TRQ settings, and temperatures due to the density altitude of the airport for aerial application. Mr. Hoffman told Inspector Markise that the elevation of KGGF is 3,425 msl. Engine output readings from both aircraft were identical according to Mr. Benjamin Hoffman. This was accomplished/coordinated by communicating over the CTAF frequency at KGGF. According to Benjamin Hoffman, N502KJ departed South on Runway 15 at KGGF at 1055am MST to aerial applicate a <sup>1</sup>/<sub>4</sub> section (with Pivot) approximately 7 miles South-East of KGGF. Benjamin Hoffman departed in N514HB from



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KGGF approximately 20 minutes later to spray the 1/4 section (with Pivot) to the field directly south of the N502KJ's field being sprayed. Due to their close proximity, both pilots were communicating/coordinating with each other on the CTAF frequency. Both aircraft were spraying east/west, west/east, making left turns in both directions performing a race-track aerial application process (Satloc-Quick Racetrack Pattern).

Mr. Benjamin Hoffman stated that they were not consistently synched. N502KJ (accident aircraft) was much lighter and faster than N514HB; due to its weight. Mr. Benjamin Hoffman stated that he would normally climb out of the field achieving heights around 200-300 feet AGL prior to the descent into the race-track pattern. Mr. Benjamin Hoffman stated that the accident aircraft was turning much higher and was climbing approximately 450-500 feet AGL in the turns. Mr. Hoffman stated that he doesn't fly that high in turns even if he were light and near empty (hopper chemical load) in a spray plane. Coordination via radio and visual contact was being maintained throughout the operation.

At approximate 1148 MST, Mr. Benjamin Hoffman stated that the last time that he saw N502KJ spraying Westbound, and pulling up out of the field into a "right turn", banking 90-100 degrees of bank, with a slight pitch up (10-12 degrees Nose-up) with the bank constant and the nose falling thru the horizon similar to a Lazy Eight (Commercial pilot maneuver). According to Mr. Benjamin Hoffman, the accident aircraft was on an approximate heading of 340-360 degrees and was above his location and positioned near his right wing, upon the last visual reference of N502KJ. Benjamin Hoffman began his left turn and lost sight of the accident aircraft. Mr. Benjamin Hoffman stated that the last visual contact could have been the accident turn/swath.

Upon completing his spray swath to the East, he no longer had N502KJ in sight. After a couple swaths, Mr. Benjamin Hoffman began making radio calls to N502KJ looking for his location. After 3-4 swaths, Mr. Hoffman pulled out of the field and flew northeast and thought he saw something. He circled that area an observed a flooded spot on the ground. Mr. Hoffman was unable to locate the other aircraft by radio or visually; so he returned back to work to finish the job. He finished his field at approximately 11:54 am local. As he departed North-west towards the airport, Mr. Hoffman observed N502KJ in the field just west of the field he was working. Mr. Hoffman contacted his ground crew to call 911.

Inspector Markise asked Mr. Hoffman of any obstructions in either field. Mr. Hoffman stated that no transmission lines or towers were near the fields being worked. There is a smaller electrical/telephone lines that were along-side of the country road that separated both fields, running east to west. No other obstructions were associated with either field. Mr. Benjamin Hoffman stated that for the Aurora Coop, pilots usually stays in the same aircraft (N-Number and make/model) for the entire season.

Inspector Markise asked Mr. Hoffman about the use of flaps during turns in the AT-502 and he had confirmed that the use of flaps during turn(s) were a common practice.



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Inspector Markise asked Mr. Hoffman as to which aircraft received fuel first from their fuel source on July 25, 2020. Mr. Hoffman stated that he thought that the accident aircraft received fuel first on that day. Mr. Hoffman was asked if it had rained the day/night before, and he replied that Grant, NE did receive some moisture. Inspector Markise asked if it were a common practice to sump the fuel prior to flight and Mr. Hoffman stated that it was not common practice.

On July 27, 2020, Mr. Hoffman sent a text message to Inspector Markise indicating that he sampled the fuel on N514HB and no contaminates were found in his fuel.

Inspector Markise asked Mr. Hoffman as to the approximate load of product (chemical/water) in the hopper and to the fuel level approximated at the last sight of the aircraft. According to Mr. Hoffman, he stated that he would have estimated the aircraft to have approximately ½ fuel quantity and probably close to empty of product, perhaps 40-50 gallons remaining of chemical. Mr. Hoffman had estimated that the accident aircraft was near the completion of his section-work and should have been close to its "clean-up work". Mr. Hoffman stated that both he and the accident aircraft were hauling the same chemical and with an application rate of 3 gallon/per acre.

Inspector Markise asked Mr. Hoffman if he heard anything unusual or any distress call on the CTAF frequency that both pilots used. Mr. Hoffman stated that the frequency had "more than usual chatter" and that no radio or distress call was made by the accident aircraft.

Digitally signed by ROBERT L **ROBERT L** MÄRKISE Date: 2020.08.03 17:54:27 MARKISE -05'00'

Robert L Markise, Aviation Safety Inspector Lincoln FSDO