ENTERED: July 21, 1977

NATIONAL TRANSPORTATION SAFETY BOARD

Langhorne M. Bond, Administrator, Fedearl Aviation Administration, Complainent,	Docket SE-3478
v.	
Kenneth Ross, Respondent.	

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J. Wm. Hacker for Complainant.

Robert J. Solner for Respondent.

INITIAL DECISION AND ORDER

JERREL R. DAVIS, ADMINISTRATIVE LAW JUDGE:

On January 21, 1977, Complainant, pursuant to Section 609 of the Fedearl AViation Act of 1958, as amended, issued an order suspending Respondent's Commercial Pilot Certificate for 60 days. Respondent was charged with landing a helicopter within approximately 50 feet of a mother and child who were on a parking lot and attempting to take shelter from the apporaching aircraft. The alleged rule infractions were:

(a) Section 91.79(a) of the Federal Aviation Regulations (FAR), in that when it was not necessary

for take-off or landing, Respondent operated an aircraft below an altitude which, if a power unit had failed, would have allowed an emergency landing without undue hazard to persons or property on the surface;

(b) Section 91.79 (c) of the FAR, in that when it was not necessary for take-off or landing, Respondent operated an aircraft over other than a congested area, below an altitude of 500 feet above the surface and closer than 500 feet to a person or structure; and

(c) Section 91.9 of the FAR, in that Respondent operated an aircraft in a careless manner so as to endanger the life or property of another.

Respondent appealed the order of suspension and such order was subsequently filed and served as the Complaint in this proceeding pursuant to Section 821.31 of the Board's Rules of Practice in Air Safety Proceedings.

Respondent filed an answer to the Complaint, admitting that on April 30, 1976 he operated, as pilot-in-command, civil aircraft N41BV, a Bell 206-A helicopter, the property of another, with a passenger on board on a flight that landed in a field immediately adjacent to the parking lot of the

Village Inn restaurant at Lake Orion, Michigan. He neither admitted nor denied that the parking lot contained numerous automobiles, at which time on the lot at least two persons were sitting in their automobiles and a mother and child were on foot. He denied the balance of the allegations contained in the complaint, including violations of the recited sections of the FAR.

Evidentiary hearings on the appeal were held in Detroit, Michigan on May 27, 1977, and yesterday, July 20, 1977. Section 831.32 of the Board's Rules of Practice provide that, in proceedings under Section 609 of the Act, the burden of proof shall be upon the Complainant.

The Evidence

The relevant testimony and exhibits may be summarized as follows:

Around noon on April 30, 1976, Mrs. Judith A. Strouse, housewife, drove her automobile to the Village Inn restaurant to meet and have lunch with a friend, Mrs. Cherrill Haverdink and her ~~daughter,~~ six-year old daugher, Sabrina. She proceeded down Clarkston Road to the east to the entrance to the Village Inn parking lot, at which time she saw and waved to Mrs. Haverdink and daugher who were standing

in a grassy field adjacent to the west side of the Village Inn Parking lot. Mrs. Strauss entered the parking lot and parked in about the middle thereof. She estimated that 50 cars were already parked on the lot.

She first noticed N41BV, the 206-A helicopter here involved, at the intersection of Highway M-24 and Clarkston Road. At that time, the helicopter was flying north over a swampy area south of Clarkston Road. She did not again observe the helicopter until after she had parked her car. When she opened the car door, the helicopter was 25 feet directly overhead. It was blowing dust, dirt, sand, dry leaves and small sticks, so she ducked back into her car, but not before getting dirt and sand in her hair and mouth.

She got back out of the car a few seconds later and observed the helicopter ~~and~~ moved to a point close to a point where she had seen her friends standing in the grassy field adjacent to the west side of the parking lot. The helicopter turned around and sat down on the field close to the southwestern corner of the parking lot. The aircraft landed about 75 feet from her car and about 50 feet southwest of a utility pole in the middle of the western edge of the parking lot. These figures were determined by

measurements that she and her husband and Mrs. Haverdink and her husband made later that evening at the parking lot.

After getting out of her car, she observed several telephone or power company cars parked on the lot and occupied by men. She then looked for Mrs. Haverdink and daughter and found them headed toward the front door of the Village Inn. The little girl was dirty, crying and complaining that she could not see. Some businessmen approached the women and inquired of their condition and offered assistance.

Although the pilot remained in the helicopter, the passenger got out, and Mrs. Strouse spoke with him. She said that he was rude and abrupt and that he said that he had come to meet some men from the highway department.

Mrs. Strouse and her friend tidied up in the women's rest room and then proceeded to have lunch. The passenger (later identified by Respondent as Adele Volpe, one of the corporate owners of B and V Construction Company, Respondent's employer) paid for their lunches.

Mrs. Strouse stated that the dirt, dust and grit were stirred up by the helicopter, that such particles moved with the helicopter, and that they stopped

moving and dissipated when the helicopter stopped. The weather on that day was warm and there was little wind. She said that there were no signs or ropes to warn of the helicopter's landing and that there was no one at the parking lot to direct traffic.

Exhibit C-1 was offered as an aerial photograph of the Village Inn, the parking lot, highway M-24, Clarkston Road, and the swampy area aouth of the parking lot. The witness depicted on Exhibit C-2, a transparent overlay to Exhibit C-1, her route of travel on Clarkston Road, her observed flight of the helicopter, the position of Mrs. Haverdink and daughter, the spot where she parked her car, and the general location of other parked cars on the lot.

Mrs. Haverdink and her daughter arrived at the Village Inn ahead of Mrs. Strouse and went to the grassy area west of the parking lot to wait for her. She first saw the helicopter while she stood there. Her markings on Exhibit C-3, a transparent overlay to Exhibit C-1, indicate that the helicopter was due south of her, headed north over the swampy area of Clarkston Road and when it reached Clarkston Road, it turned east and crossed the road east of the parking lot. She indicated on this overlay that the helicopter hovered near the southeast corner of the parking lot

about 10 to 20 feet above the trees adjacent to the east side of the parking lot. As the helicopter hovered, Mrs. Strouse pulled into the parking lot and parked in the same row of cars as Mrs. Haverdink had parked, i.e., due east of the post or the pole in the center of the western edge of the parking lot. She then observed the helicopter make a westerly descent.

Mrs. Haverdink's testimony was somewhat confusing in regard to where the helicopter passed over the parking lot. At first she said it passed over the rear of her and Mrs. Strouse's cars, which were parked facing north, but this statement was inconsistent with her drawing of the helicopter's path on Exhibit C-3 and other parts of her testimony. Later, she said that the helicopter passed approximately 30 feet north of the telephone lines on the south edge of the parking lot and about 50 south of their cars. As the helicopter moved over the lot, she stated that its altitude was equal to the height of the south telephone poles, which she estimated to be 30 feet.

When the helicopter was about midway over the parking lot, Mrs. Haverdink and her daughter could feel the impact of the dirt and sand stirred up by the rotor blades of the aircraft. The noise became very

loud and the child covered her ears. Dust and grit got into the child's mouth and eyes and she began to cry. Breathing became difficult for both of them. They began moving away from the helicopter toward the pole in the center of the western edge of the lot. As the helicopter passed over the western edge of the parking lot, Mrs. Haverdink and daughter had reached the pole. They then ran to duck behind a car which Mrs. Haverdink believed was about five feet north of the pole. The helicopter hovered over the place that it was going to land, then turned around and sat down.

Mrs. Haverdink and her daughter were covered with dirt and grit which had gotten into their hair, eyes and shoes and into Mrs. Haverdink's stockings. She spoke to the passenger, Mr. Volpe, who was rude and abrupt, but who nevertheless paid for their lunches, with the exception of desert.

Mrs. Haverdink described weather conditions on that date as sunny and pleasant. She was emphatic in her contention that the dust, sand, grit, etc.,were blown by the helicopter and moved with it. She said there were no signs, ropes or persons directing traffic or indicating that the helicopter would be landing in the vicinity of the lot.

Michael Atkinson was driving to the Village Inn with two friends on the date of the incident. He saw the helicopter hovering over the trees east of the parking lot, but indicated on Exhibit C-4, another transparent overlay to Exhibit C-1, that the aircraft was hovering further north and east than indicated by Mrs. Haverdink. He said that the helicopter was hovering about 50 to 60 feet above the trees at an altitude he said was definitely greater than 100 feet. He stopped on Clarkston Road some distance short of the parking lot to avoid the sand and grit that the helicopter was displacing as it passed over the parking lot. He stated that such dust and sand were blown up by the helicopter and moved in relation to it. To avoid such particles, he started moving east again as the helicopter flew west over the parking lot. This witness testified that the helicopter descended as it passed over the lot at a speed of two to three miles per hour and that the aircraft flew in a straight line to the point where it ultimately landed, and that it passed south of the center line of the parking lot. He indicated that there were 30 to 40 cars parked on the lot and that the helicopter passed over some of the cars. He estimated the lowest altitude of the helicopter over the parking lot as being 50 to 60 feet.

He stated that the helicopter was about 60 feet beyond the western edge of the lot when it turned around and descended backwards to a position above its landing point. He described the landing point as a grassy area 20 feet west of the lot and that the descent was vertical.

This witness further testified that he first saw Mrs. Haverdink and her daughter when he was half way between the east and west entrances to the parking lot. They were north of the pole in the center of the westerly edge of the lot and were about 50 feet from where the helicopter landed. He parked his car about one minute later.

After getting out of his car, witness Atkinson walked toward the entrance where he met Mrs. Haverdink and her daughter. The little girl was covered with dirt and dust and was crying. As they stood by the entrance, he observed Mrs. Strouse coming toward them. The passenger had gotten out of the helicopter and, instead of heading straight toward the entrance to the Village Inn, swerved through the parking lot as if to avoid the group at the door. Witness Atkinson saw no ropes, signs or people directing traffic or indicating that the helicopter would land at the Village Inn.

Robert Ellinson was a passenger in Witness Atkinson's

truck. He first noticed the helicopter as the truck travelled north on Highway M-24. After turning on to Clarkston Road, Mr. Ellinson saw the helicopter travelling west, north of and parallel to Clarkston Road. He estimated that the trees east of the parking lot were 50 to 60 feet tall and that the helicopter had an altitude of 100 feet as it flew over them. As it flew over the parking lot, the aircraft descended to an altitude of 35 feet.

The truck stopped short of the western entrance to the parking lot to avoid the dirt, grit and sand that was being displaced by the helicopter. He stated that the helicopter passed over the southerly one-third portion of the parking lot and moved very slowly, about the speed of a walk. The truck started moving again when the helicopter was 50 to 75 feet due north, at the western edge of the parking lot. At that time the helicopter altitude was even with the southern telephone lines, or approximately 35 feet. The helicopter turned around and flew backwards over the grassy area next to the parking lot. It then came forward toward the parking lot and descended almost vertically to the ground.

Witness Ellinson first observed Mrs. Haverdink and her daughter after the truck started moving again.

He said they were close to the post in the middle of the western edge of the lot. He met them at the entrance to the Village Inn and he stated that both were very dirty and the child was crying. Mrs. Strouse later joined the group, visibly angered.

Richard Blanchard was also a passenger in Witness Atkinson's truck. He first saw the helicopter when it was hovering over the trees east of the parking lot at an altitude of 100 feet, or twice the height of the trees. He estimated that there were at least 30 cars on the parking lot. He said that the helicopter was blowing up clouds of sand as it proceeded across the parking lot to such an extent that the truck stopped short of the western entrance. He indicated on Exhibit C-6, another transparent overlay to Exhibit C-1, that the helicopter was over the northeastern quadrant of the parking lot when the truck stopped, a point he described as approximately the center of the lot, but he also said that the aircraft's path was over the southern part of the parking lot. The helicopter's altitude was equal to or less than the height of the telephone poles, or about 30 feet. He testified that the helicopter turned around over the southwest corner of the parking lot, backed over the grassy area where it would land, came forward somewhat, and made a

vertical descent to the ground.

He also met Mrs. Haverdink and her daughter at the entrance to the Village Inn and he described their physical appearance as dirty, disheveled, and that the child was crying. He further testified that the passenger got out of the helicopter and took an indirect route to the Village Inn entrance as if to avoid them at that location. This witness contended that the dust and sand was blown by the helicopter and not by the wind.

Ronald McGarry is an aviation operations inspector for the FAA and holds an ATP certificate with the usual ratings, a flight instructor certificate with airplane single and multi-level ratings, an instrument instructor certificate, a ground instructor certificate for advanced instrument training, and a flight engineer rating on turbo-jets. ~~a Boeing 2023.~~ He has 30 hours flight time in helicopters. His duties include accident and violation investigations, and he investigated the incident at the Village Inn.

Surface weather observations (Exhibit C-8) introduced during Inspector McGarry's testimony indicated that good VFR conditions prevailed on April 30, and that there were no wind conditions of unusal force.

This witness also sponsored Exhibit C-9, a diagram indicating various pertinent distances around the Village Inn parking lot. It was prepared by Inspector McGarry after he and inspector Gamble met with Mrs. Strouse and Mrs. Haverdink at the parking lot on May 20, 1976. Based on information furnished them by these two women with respect to the location of themselves, the helicopter and its flight path, and the light pole in the parking lot, the inspectors tape-measured the distances reflected on this exhibit. The diagram indicates that Mrs. Strouse parked her car 60 feet from the light pole in the center of the south edge of the parking lot. The helicopter landed in the grassy area 13 feet from the west side of the parking lot. Mrs. Haverdink and her daughter were standing 23 feet north of the place where the helicopter landed when they first observed it. They ducked down behind a car 34 feet from the point where they were standing, and 15 feet north of the pole in the middle of the western edge of the lot. In this respect, it should be noted that the parties stipulated that the rotor blades of the helicopter were 33.3 feet in length and that the tail rotary was two to three feet from the ground.

Inspector McGarry spoke with Respondent on two

occasions -- by telephone on May 11, 1976 and in personal interview on June 3, 1976. The Inspector's testimony concerning these contacts was based on notes taken during the conversations. In the telephone conversation, Respondent stated that he came east over the trees and continued 100 to 150 east of the parking lot, made a 180-degree-turn, and began heading west. Respondent told him that he had an altitude of about 75 feet AGL while coming in over the trees to land. The Respondent further told him that he saw Mrs. Haverdink and her daughter about 100 feet from him and hovered over the trees to see what they would do. They apparently panicked and ran away from the helicopter. His passenger left the helicopter to talk to Mrs. Haverdink and offered to buy them lunch. The Respondent further told the Inspector during this telephone conversation that he believed his landing was proper and that the pilot of a helicopter could land wherever he wanted provided that he had permission of the property owner.

During the personal interview on June 3, Respondent told the Inspector that his altitude was 200 to 300 feet while he was over the trees, and that he descended as he crossed the parking lot. The Respondent further told him that, during this interview, ~~that~~ Mrs.

Haverdink and her child were on the parking lot and that the child had her hands over her ears and was crying. As he continued his approach, Respondent could see a woman crouching behind a car, which he told the Inspector ~~that~~ he thought ~~it~~ was amusing. After the passenger left the helicopter, Respondent stayed behind until the rotors stopped so that he could tie them down. He saw no cloud of dust as he crossed the lot, although he conceded that one may have been created behind the aircraft. Respondent also claimed that there were only a few cars in the parking lot and that he did not fly over any of them. In this regard, he further stated to the Inspector that it would have made no difference if he had. He stated that he did not consume any alcohol after going into the Village Inn and did not care what his passenger might have had to drink.

Inspector McGarry expressed the view that Respondent displayed a cavalier attitude toward compliance of the FAR and seemed indifferent to safety considerations. The Inspector concluded his testimony by expressing the opinion that a forced emergency landing probably could not have been conducted safely under the circumstances existing at the Village Inn on the day of the incident.

Mr. Lee R. O'Berry is employed at the FAA Regional Office, Chicago, Illinois, as a General Aviation Operations Specialist, in particular as a helicopter specialist for the Great Lakes area. He has worked for the FAA for some six years and has had 13 years of military helicopter flying experience. He holds an ATP certificate with helicopter type ratings in several kinds of helicopters. He is qualified in the Bell helicopter 206-A, the helicopter involved in this incident, and has approximately 100 hours in the 206-A and about 25 hours in the SK-58, the military version of the 206-A. He has some 6,000 hours flying time in helicopters.

Witness O'Berry sponsored Exhibit C-10, identified as the Height Velocity Diagram (sometimes referred to as the "Dead Man's Curve") for the 206-A. Indicated air speed shown on this diagram is on the X-axis and the altitude above ground is on the Y-axis. The shaded areas on the diagram are areas in which the pilot should avoid flying because a pilot flying a helicopter in those areas may not have enough time to recover and make a safe auto rotative landing in the event of a power failure. He conceded, however, that flying in those areas is not prohibited. The diagram is part of the helicopter's flight manual and is required

knowledge of the pilot.

Witness O'Berry expressed the opinion that the Respondent's operations in the vicinity of the Village Inn on April 30 were unsafe and imprudent because he flew within the shaded area of the high velocity envelope. He stated that the Respondent's hovering and traveling at slow speeds at the altitudes described by witnesses testifying on behalf of Complainant would have made a crash unavoidable if the helicopter's power had failed. It should be observed that this witness made an on-the-ground inspection of the parking lot and that, among other things, he computed the height of the light poles on the west side as being 25 feet and the light pole in the middle of the south side as being 35 feet. He further testified that damage to the helicopter would have been likely and, given the proximity of the helicopter to the persons and automobiles on the ground, injury to the people and damage to the cars would have been possible in the event of power failure. For operations at altitudes of 40 to 300 feet, he testified, air speeds of 25 to 40 miles per hour would have been required to avoid operating in the shaded areas of the Height Velocity envelope. Hovering should not have been attempted at altitudes greater than eight feet.

As a part of his duties, this witness approves heliport helicopter landing activities. He noted that there are published criteria for such landings in the Heliport Design Guide and stated that the presence of cars, people or power lines may lead the FAA to disapprove a landing site. He stated that he has approved "Santa Clause" landings, but never when people were closer than 100 to 200 feet to the landing site. Based on the other witnesses' testimony concerning the number of cars in the parking and his ~~own~~ on-the-ground inspection of the site itself, Witness O'Berry stated that the Village Inn was not an appropriate place to land and that he would not have approved a landing there on the date of the incident.

This witness also discussed the turbulent effects created by the helicopter. He stated that the size of the area which would be so affected is determined by the length of the rotor blades. When the helicopter is moving at around five miles per hour, the rotors would begin to blow surface substance at an altitude of 50 feet. As the helicopter approached ground, the area affected would increase to a distance of 17 feet beyond the ends of the rotor blades so that any point within 33 to 35 feet of the helicopter would be affected.

The turbulent or downdraft effect may be felt as far as ~~six to~~ 67.2 feet from the center of the rotor blades.

Respondent testified in his own behalf. He is the corporate pilot for B and V Construction Company. He has been a licensed pilot since 1942 and has been flying helicopters continuously for the past 15 years. He has about 2,300 hours in the 206-A, and a total of 6,000 hours in helicopters.

On April 30, 1976, he flew Mr. Volpe, his boss, to the Village Inn. Mr. Volpe assured him that he had permission to land at that location.

Respondent approached the parking lot from the south at an altitude between 300 ~~three~~ and 500 feet AGL. He circled the area two times looking for power lines and other possible navigational obstructions. He made a downwind leg heading easterly along Clarkston Road then made a 180-degree turn to the left at an air speed of around 120 miles per hour. He stated that there was a 15 to 20 mile per hour wind which he described as a quartering wind from the southwest. In circling the area, he stated that he observed no cars in the southerly portion of the lot and observed no overhead wires across the lot. He stated that his intent was to land on the grassy area immediately

west of the lot. He denied that he hovered over the trees immediately east of the parking lot.

He further testified that he saw a woman and little girl under the outer edges of a tree on the westerly side of the parking lot when he was about 1,450 feet from them. He then observed them walking toward the parking lot.

When about 1,200 feet from the easterly edge of the parking lot, Respondent testified that he began to reduce the aircraft's speed and that such speed was reduced to 65 to 80 miles per hour as it passed over the easterly edge of the lot. He stated that his altitude on the easterly edge of the parking lot was 130 to 150 feet above the tree tops. He described the height of these trees to be from 65 to 100 feet. He said that a light pole, measuring 35 feet, is on the westerly side of the lot and located about 85 feet from the southerly edge of the lot. He stated that the helicopter passed 30 feet from Clarkston Road while passing over the lot. He estimated his altitude as 75 feet over the center of the lot, at which time his air speed was down to 50 miles per hour, and that his altitude dropped to around 35 feet as the aircraft passed over the westerly edge of the lot, at which time his air speed was down to 35 to 40 miles per hour.

He stated that he passed over no cars on the lot and that they were at least 100 feet north of his flight path and that the woman and child were also at least 60 feet north of his flight path before leaving the grassy area and heading in a northeasterly direction. When the aircraft came to the landing site, it came to a three foot hover, turned around and set down approximately 90 to 95 feet beyond the westerly edge of the lot. Respondent further testified that if at any time that he had had a flame-out or a power failure he would have had no problem landing. He stated that the parking lot was about 250 feet square. In this respect, it should be noted that Witness O'Berry measured the east-west width of the lot and determined that it was 198 feet. At the time the aircraft landed, Respondent estimated that the woman and child behind the parked automobile were at a lateral distance of 120 feet therefrom.

Exhibits R-3, R-4 and R-5 were offered on behalf of the Respondent. Exhibit R-3 is Respondent's letter responding to Complainant's letter of proposed certificate action. Exhibit R-4 is a sketch prepared by Respondent showing that his altitude over the parking lot decreased on a slant line from 150 feet to 35 feet. Exhibit R-5 is an outline prepared by

Respondent showing the parking lot, approximate location of cars parked thereon, and the flight path and landing area of the 206-A.

Respondent's counsel had planned to call Barney Stutsman, an expert helicopter pilot, instructor and FAA designee, to appear and testify on behalf of Respondent. Due to a hospitalization of, and major surgery upon, his wife yesterday, Mr. Stutsman was unavailable for testimony. In the circumstances, counsel for Respondent and Complainant stipulated that Mr. Stutsman would testify that if he were presented with the hypothetical situation of facts presented by Respondent, which Respondent testified to and on the basis of data reflected in Exhibits R-3, R-4 and R-5, relative to Respondent's approach and final landing at the Village Inn on April 30, 1976, he (Mr. Stutsman) would testify that such landing was made in a safe manner and would not, in the event of engine failure, endanger life or property or that a safe emergency landing could not have been made.

Discussion and Conclusions

This case is somewhat comparable to the typical low flying case, the disposition of which inevitably turns on the credibility of the witnesses. There are many inconsistencies in the record with respect to

lateral distances and altitudes of the 206-A during its approach and landing at the Village Inn. This is not too surprising when the different vantage points of different witnesses, the lapse of over a year since the incident, sequestration of the witnesses, etc., are taken into consideration. Indeed, such testimony would have been highly suspect if it meshed in all instances.

As indicated above, there are some variations in the testimony of the witnesses who testified on behalf of the Complainant with respect to the altitudes, flight path and speed of the helicopter over the parking lot. There are also variations of distances the helicopter was from persons and property. As a few examples, Mrs. Strouse said the helicopter flew 25 feet over her head and landed 75 feet from her car and 50 feet southwest of a utility pole in the middle of the western edge of the lot, the last two distances having been determined by actual measurement. Mrs. Haverdink testified that the helicopter 10 to 20 feet above the trees adjacent to the easterly side of the lot. She said the helicopter passed 50 feet south of her car at an altitude of 30 feet and that it hovered over the landing site before landing. Mr. ATkinson testified that the helicopter hovered 50 to 60 feet

above the trees on the eastern edge of the lot. He said the air speed across the lot was two to three miles per hour and that it passed over some of the cars parked on the lot at an altitude of 50 to 60 feet. Witness Ellinson said that the helicopter was 100 feet AGL when it flew over the trees, the height of which he estimated to be 50 to 60 feet. The altitude of the aircraft over the lot, he said, was 35 feet, and he described its air speed as the speed of a walk.

Witness Blanchard saw the helicopter hovering over the trees at an altitude of 100 feet, or twice the height of the trees. He said the aircraft's altitude across the lot was 30 feet.

Inspector McGarry testified that Respondent told him in a telephone conversation that he (Respondent) had an altitude of about 75 feet AGL when passing over these trees and that Respondent saw Mrs. Haverdink and daughter at that time and hovered to see what action they would take. Later, however, during a personal interview, the Inspector said that Respondent indicated that his altitude was 200 to 300 feet when passing over those trees.

Respondent, on the other hand, testified that his altitude over the parking lot decreased on a slant line from 150 to 35 feet and that the lowest his air speed

dropped was 35 miles per hour over the westerly edge of the lot. He denied any hovering and that people and parked cars were at least 60 feet and 100 feet, respectively, to the right of his flight path. In his written response (Exhibit R-3), he stated that his landing was 100 to 150 feet beyond the parking lot. On the witness tand, however, he testified that he landed 90 to 95 feet beyond the westerly edge of the lot.

Irrespective of these variations on both sides, one fact stands unrefuted and in bold relief. Mrs. Haverdink and her daughter and Mrs. Strouse were severly buffeted, impacted, and pelted, by dirt, dust, grit and sand caused by the downdraft of the rotor blades. Based on Witness O'Berry's discussion of the turbulant effects created by the rotor blades of a 206-A, it appears that Respondent flew the helicopter at lower altitudes and speeds and in closer proximity to persons and property than contended on his part. Having carefully observed the demeanor of all witness, it is my conclusion that the testimony of Complainant's witnesses is more credible than Respondent's.

While recognizing that a helicopter is capable of hovering or moving at a slow speed and can effectuate a landing in a very small area, and the regulations

that are here involved recognize this fact of the helicopter's operation, the aircraft nonetheless has certain operating characteristics which create safety hazards. Thus, where there is a power failure, the aircraft, unless it possesses a sufficient altitude, will immediately plummet if it has been in a hovering position or operating within the shaded areas of the Height Velocity Diagram. In my opinion, the testimony of Complainant's witnesses, in the aggregate, supports the proposition that Respondent, in making his landing approach, operated within the shaded areas of the Height Velocity envelope.

It further appears that no pre-arrangements were made with anyone on the surface to keep the approach and landing site clear. Although Respondent was assured by his employer that permission had been obtained to land at the Village Inn, such assurance does not excuse the regulatory violations in view of the fact that the pilot-in-command, as spelled out in Section 91.3 (a) of the FAR, " is directly responsible for, and is the final authority as to, the operation of that aircraft."

In summary, after carefully weighing all of the circumstances described above, it is my conclusion that the landing in question was not a safe or prudent

operation, and that Respondent violated Section 91.79 (a) and (c) of the FAR. With respect to Section 91.9, the Board has held that, "a section 91.9 infringement is almost invariably concomitant with a 91.79 violation."

In weighing sanction, it should be noted that Respondent, in his many years of flying, has never run afoul of the FAR and, more importantly, he is totally dependent upon his certificate for his livlihood. In Administrator ~~against~~ v. Palmer, EA-102, the airman was charged with violations of Sections 91.79 (d) and ~~of~~ 91.9, in that he operated a helicopter at a low altitude over a river and hovered in his operations during a boat race. The examiner found no violation of 91.79 (d) and the Administrator, on appeal, did not challenge that finding. The Board did find, however, that the airman's conduct was sufficiently careless as to endanger the life or property of others and imposed a 15-day suspension. In ADministrator ~~against~~ v. Bell, EA-351, the examiner found that the airman landed a helicopter in a street in violation of Sections 91.79 (b) and (c) and 91.9. He reduced the period of suspension of the airman's commercial pilot certificate from 30 days to three days. On appeal, the Board reinstated the 30-day suspension, notwithstanding the

fact that the airman was dependent upon his certificate for his living. On balance, it is my conclusion that a lessor period of suspension than that sought would be appropriate herein, considering the circumstances of the case and the disciplinary and deterent purposes for which sanctions are imposed.

Contentions of the parties as to facts or law which have not been discussed hereinabove have been given due consideration and are found to be either not materially significant or not justified.

Findings and Order

Upon consideration of all evidence of record, it is found that (1) A proponderance of the substantial, reliable, and probative evidence establishes the facts alleged in the complaint and shows that Respondent violated the sections of the FAR recited therein, and (2) Safety in air commerce or air transportation and the public interest require affirmation of the order of suspension as modified herein.

It is ordered, That Respondent's commercial pilot certificate be, and it is hereby, suspended for 30 days.

It is further ordered, That Respondent physically surrender his commercial pilot certificate to an appropriate representative of Complainant pursuant

to Section 61.19 (f) of the FAR.

It is further ordered, That, unless stayed by the timely filing of a notice of appeal, this order shall become effective July 31, 1977.

Dated at Detroit, Michigan this 21st day of July, 1977.

Edited 8/5/77 JRD

Jerrell R. Davis,
Administrative Law Judge

Appeal

Appeal may be made by filing with the National Tranportation ~~and~~ Safety Board, Docket Section, 800 Independence Avenue N. W., Washington, D. C. 20594, and serving upon the other party a notice of appeal within 10 days from today, perfected by the filing and serving of a brief in support thereof within 40 days from today. The procedure on appeal is set forth in detail in Sections 821.43, 821.47, and 821.48 of the Boards Rules of Practice in Air Safety Proceedings.

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