

UNITED STATES OF AMERICA
NATIONAL TRANSPORTATION SAFETY BOARD
(First Circuit)

J. Lynn Helms, Administrator,
Federal Aviation Administration,

complainant

Docket SE-5233

v.

Vance D. Colvig,

respondent.

Los Angeles, California

September 29, 1981

Frederick C. Woodruff for complainant.

Vance D. Colvig, respondent in person.

ORAL INITIAL DECISION AND ORDER

Jerrell R. Davis, Administrative Law Judge:

On May 12, 1981, Complainant,, pursuant to
Section 609 of the Federal Aviation Act of 1958, as amended,
issued an order suspending Respondent's commercial pilot
certificate for 60 days.

Respondent was charged with (1) making five
passes under the Rainbow Bridge National Monument, approximately
27 miles northeast of Page, Arizona, closer than 100 feet to
persons on the surface, and (2) filing an IFR flight plan
without including therein an alternate airport.

1 Complainant asserted that Respondent violated the
2 following sections of the Federal Aviation Regulations (FAR):

3 (a) Section 91.79(a), by operating an aircraft,
4 when it was not necessary to take off or landing, below an
5 altitude which, if a power unit had failed, would have allowed
6 an emergency landing without undue hazard to persons or
7 property on the surface;

8 (b) Section 91.83(a)(9), by filing an IFR flight
9 plan and not including therein an alternate airport; and

10 (c) Section 91.9, operating an aircraft in a
11 careless or reckless manner so as to endanger the life or
12 property of another.

13 Respondent appealed the order of suspension and
14 such order was subsequently filed and served as the complaint
15 herein in accordance with Section 821.31(a) of the Rules of
16 Practice. In his answer, Respondent expressly denied any
17 violations of the FAR.

18 And evidentiary hearing on Respondent's appeal was
19 held today in Los Angeles, California. Section 821.32 of the
20 Rules of Practice provides that, in proceedings under
21 Section 609 of the Act, the burden of proof shall be upon the
22 Complainant.

23 Prior to the introduction of evidence, Respondent
24 orally admitted Paragraphs 1, 2, 3 and 7 of the complaint.
25 He denied Paragraphs 8, 9 and 10. With respect to Paragraph 4,

1 he neither admitted nor denied the allegation therein that
2 there were approximately 25 people under or in the vicinity
3 of the bridge. With respect to Paragraph 5, he admitted that
4 he flew the helicopter in five passes under the bridge but
5 denied that the passes were made closer than 100 feet to
6 persons on the surface. With respect to Paragraph 6, he
7 denied that he conducted the passes directly over people on
8 the ground, but conceded that he flew closer than 500 feet to
9 persons on the courtesy decks of the bridge.

10 Complainant's motion to strike the reference to
11 Section 91.83(a) (9) of the FAR and to substitute in lieu
12 thereof reference to Section 91.79(d) was granted. Section
13 91.79(d) provides that, except when necessary for take off or
14 landing, a helicopter may be operated less than the minimum
15 prescribed in sub-paragraph (b) or (c) of Section 91.79 if the
16 operation is conducted without hazard to persons or property
17 on the surface.

18 THE EVIDENCE

19 The relevant testimony and exhibits may be
20 summarized as follows:

21 Art Cloutier is employed as an Interpretation
22 Supervisor of the National Park Service covering the Glenn
23 Canyon Recreational Area in Arizona. His jurisdiction includes
24 the Rainbow Bridge National Monument.

25 This witness sponsored nine photographs, identified

1 as Exhibits C-1 through C-9. Exhibit C-1 is a photograph
2 taken of the Rainbow Bridge National Monument from the
3 upstream side looking down toward the dock area. Exhibit C-2
4 was taken from the downstream side in the direction of the
5 upstream from the near end of the docks. Exhibit C-3 was
6 taken further downstream and shows the end of the floating
7 walkway. Exhibit C-4 is taken in the direction looking
8 downstream towards the dock along the floating dock. Exhibit
9 C-5 was taken further downstream from a boat as it was
10 approaching the docking area. Exhibit C-6 is a zerox copy
11 of an aerial color photograph of the bridge looking downstream
12 toward Lake Powell. Exhibit C-7 is also a zerox copy of an
13 aerial color photograph of the bridge looking upstream.
14 Exhibit C-8 consists of two enlarged photographs that Witness
15 Cloutier made from 35 millimeter slides taken by a visitor
16 at the monument of the day in question. The photograph in
17 this exhibit labeled Number 1 actually shows the Civil
18 Aircraft N59492, a Bell Model 206 Helicopter, and which is
19 the aircraft that Respondent ~~had~~ admittedly flew on the day
20 in question under the bridge. Exhibit C-9 also consists of
21 two enlarged photographs made from the aforementioned 35
22 millimeter slides and each picture shows the Bell 206B
23 helicopter.

24 Witness Cloutier further testified concerning
25 dimensional aspects of the Rainbow Bridge Monument; for example,

1 he stated that the width of the arch of the bridge is around
2 275 feet. The arch at the top, he said, has a thickness of
3 about 42 feet. From the top of the water under the bridge
4 to the underside of the arch measures about 212 feet. The
5 highest elevation of the water is around 3700 feet and the
6 water has a depth of around 36 feet.

7 On the day in question, Mrs. Sharron Malmquist was
8 employed by the National Park Service as a Park Technician
9 working at the Visitor's Center at the Rainbow Bridge
10 Monument.

11 Around ten a.m. on August 29, 1980, she was
12 conducting a tour with a group of visitors numbering about
13 six when she heard the noise of and observed a helicopter
14 flying overhead. She marked with an "X" on Exhibit C-2 the
15 approximate location that she and the monument visitors were
16 standing at the time. They were looking upstream towards
17 the bridge. She stated that the helicopter flew up the
18 canyon and went under the bridge and she observed four
19 additional passes under the bridge. At the time, she said
20 that some of the visitors wondered aloud if such activity was
21 permissible.

22 She estimated that the passes consumed about 20
23 minutes. Other people, she said, were coming and going and
24 she estimated between 25 and 30 people were in the general
25 vicinity of the bridge at that time. She estimated that the

1 altitude of the helicopter on its lowest pass under the bridge
2 was about 30 feet above the water and that its highest
3 altitude was approximately "A little more than 100 feet above
4 the water."

5 Her slant distance to the aircraft at the closest
6 point flown was about 120 feet. All passes were conducted
7 over the water and she observed two persons in the helicopter.
8 Winds were calm.

9 With her naked eye, she was able to observe and
10 record the registration number of the aircraft. She actually
11 recorded the registration number as "NE59492" but, upon
12 observing the photograph labeled Number 3 in Exhibit C-9,
13 she readily conceded that the letter "E" does not constitute
14 part of the registration number.

15 She further testified that the photograph labeled
16 Number 4 in Exhibit C-9, represented the lowest pass of the
17 helicopter and that the photograph labeled Number 3 in that
18 exhibit constituted the highest pass.

19 Alfred M. Adams is a Classified Situation Monitor
20 (trouble-shooter) for the Flight Standards Division in
21 Los Angeles. In addition to his ATR rating, he has
22 helicopter ratings in the Bell 204 and 206 helicopters.

23 He has been in aviation since 1966 and with the
24 FAA since 1971, At one time, he served as Helicopter Specialist
25 for the FAA at one of ^{the} ~~his~~ GADOs. He has also taught in a

1 helicopter school involving the Bell 206 helicopter. He has
2 about 450 hours as a pilot-in-command of the Bell 206B.

3 This witness sponsored Exhibit C-10, which depicts
4 the height velocity curve of a helicopter and reflects the
5 area that a helicopter should not be operated in for safe
6 auto-rotation. Based upon the testimony adduced by witnesses
7 Cloutier and Malmquist, Witness Adams expressed ^{the} ~~a~~ view that
8 each pass was conducted within the height velocity curve
9 and that the helicopter could not have made, in the event
10 of power loss, a safe auto-rotation.

11 In the event of engine loss, he said that the
12 safest, but not safe, option was to execute ^a ~~a~~ straight-ahead
13 and impact the water. As he put it, no other safe options
14 were available.

15 He further testified that the potential danger
16 from landing the helicopter in water would probably be a
17 total loss of the aircraft. He also expressed ^{the} ~~a~~ view that
18 operation of the Bell Helicopter ~~and~~ in the manner described
19 by Witness Malmquist and, in light of the photographs depicting
20 the terrain of the involved area, such operation, in the
21 event of power loss, would have constituted a hazard to
22 persons on the ground.

23 He further expressed ^{the} ~~a~~ view that a reasonably
24 prudent pilot would not attempt to fly under the arch. An
25 emergency landing on land, he said, would have resulted in

1 dynamic rollover.

2 On cross-examination, Witness Adams stated that,
3 'When necessary to ditch a 206B Helicopter in water, the
4 pilot should push the cyclic over to the left and apply
5 collective pitch to cushion impact.

6 He conceded that he has, on prior occasions, safely
7 auto-rotated a helicopter below the recommended auto-rotative
8 speed. Also, he conceded that the height velocity curve
9 reflected in Exhibit C-10 is part of the performance data
10 contained in the Bell 206B Manual and is intended to provide
11 "conservative information to be used in conducting flight
12 operations," as stated in Exhibit R-1, also a part of the
13 performance data contained in the Bell 206B manual.

14 He further conceded that the height velocity curve
15 is not necessarily true for a very experienced pilot and,
16 in this respect, further conceded that the chart reflected on
17 Page 2 of Exhibit R-1 has validity.

18 Finally, this witness sponsored Exhibit C-11, an
19 undated typed statement signed by Respondent. This statement
20 indicates that Respondent's first flight through the arch was
21 a recon made at approximately 25 miles per hour. The
22 remaining flights were made at approximately 30 to 45 miles
23 per hour.

24 He concedes in this statement that the surrounding
25 terrain was unsuitable for a successful auto-rotation without

1 the helicopter rolling over upon touchdown, plus the possibility
2 of fire upon impact with this surface.

3 Brian Vidor, a Los Angeles Film Maker, also holds
4 a commercial pilot's certificate and is rated for Rotorcraft,
5 having logged some 50 hours in a 206B helicopter.

6 He stated that N59492 was rented at Van Nuys,
7 California for the purpose of making a film test through the
8 Glenn Canyon area. He generally described the terrain in
9 the immediate vicinity of the Rainbow Bridge Monument as
10 "water, slight slope and sheer cliffs".

11 At the time the flight was made, he testified that
12 both he and Respondent were wearing flotation jackets or
13 vests and helmets in the event emergency ditching became
14 necessary in the water under the bridge or general vicinity.

15 He was an occupant in the aircraft for the purpose
16 of film making. Respondent was pilot-in-command and was the
17 sole manipulator of the controls while flying in the Glenn
18 Canyon area, including the five passes made under the bridge.

19 He further testified that the helicopter never
20 flew over persons on the ground. On cross-examination, he
21 assumed that water was the only suitable place to safely
22 auto-rotate in the event of power failure. His estimates of
23 altitude of the helicopter did not vary much from the
24 testimony of Witness Malmquist.

25 He did, however, express the view that the aircraft

1 never got down below 50 feet above the water.

2 Witness Vidor, as previously indicated, manipulated
3 the controls of the camera, which was mounted on the nose of
4 the helicopter and a ^{movie} film was shown in the courtroom as the
5 helicopter made two passes under the bridge on the day in
6 question.

7 The first pass appeared to be much lower than the
8 second pass and, in this respect, it should be noted that
9 Respondent conceded that the first pass was somewhere between
10 30 and 50 feet and that the second pass depicted in the film
11 was around 150 feet above the water.

12 David Patrick who has accumulated about 1300 hours
13 as a pilot-in-command of the 206 helicopter is employed by
14 National Helicopter Service. He has a total of some 2100
15 hours in helicopters as a PIC and graduated from the Bell 206
16 pilot school.

17 He stated that in the event of engine failure
18 while operating a 206 helicopter, first consideration should
19 be given to people on the ground, then the occupants in the
20 helicopter and finally the helicopter itself.

21 He has test-auto~~o~~rotated the 206 helicopter
22 thousand~~ths~~ of times and, in this respect, he was a former test
23 pilot for Hughes Helicopters.

24 He also testified that he has performed successful
25 auto-rotations within the height velocity curve and that the

1 appropriate ditching procedure in a 206B helicopter is to
2 roll the helicopter to the right, not the left, as stated by
3 Witness Adams, in order to keep the transmission from coming
4 into the cabin, or, in other words, to stop rotation of the
5 mass.

6 This witness, assuming facts as stated by Witness
7 Malmquist and his study of the photographs, expressed ^{the} ~~a~~ view
8 that the helicopter, in the event of power loss, could have
9 safely auto-rotated on the water without hazard or undue
10 hazard to persons or property on the ground.

11 He conceded that the helicopter, itself, would
12 probably be a total loss as a result of ditching in the
13 water. However, he expressed a further view that occupants
14 in the helicopter would experience no danger or no injury
15 because of no disintegration or strewn wreckage as a result
16 of impact.

17 In this respect, he stated that the integrity of
18 the rotorhead is very good because the Bell 206 helicopter
19 has a TT-strap pack which holds the rotor blades securely in
20 the main grip.

21 On cross-examination, Witness Patrick conceded that
22 the involved helicopter on the day in question could not have
23 safely auto-rotated on land surface in the event of a power
24 loss. He stated that the blades of the helicopter would not
25 come off on normal water auto-rotation, based on his knowledge

1 of other accidents that he had either heard^{of} or read about. He
2 Later stated that this view was predicated on his knowledge
3 of at least ten emergency landings of the 206 helicopter in
4 water.

5 He did concede, however, some element of endanger-
6 ment to occupants of the helicopter on water ditching.

7 On the day in question, Respondent was employed by
8 Helicopters International as a 206B pilot. He has better than
9 900 hours as a PIC in this type helicopter and has made three
10 emergency landings on land (one within the height velocity
11 curve) without damage to the aircraft or injury to occupants.

12 Respondent is presently employed by Landells
13 Aviation as a pilot for 206B helicopters and is solely
14 dependent upon his certificate for his livelihood. He
15 sponsored Exhibit R-3 which is a statement from the director
16 of operations of Helicopters International, his employer on
17 August 29, 1980.

18 This statement indicates that Respondent is a very
19 safety-oriented pilot and is a highly motivated individual
20 who would be an asset to any organization.

21 DISCUSSION AND CONCLUSIONS

22 Two issues are presented for resolution: (1)
23 did Respondent operate a helicopter below an altitude which,
24 if a power unit had failed, would have allowed an emergency
25 landing without hazard and/undue hazard to persons or property

1 on the surface; and (2) did Respondent operate a helicopter
2 in a careless and ~~y~~reckless manner so as to endanger the life
3 or property of another.

4 It appears that the regulations allow helicopters
5 to fly at any altitude that does not create a hazard to
6 persons or property on the surface.

7 Most, if not all, of the controlling facts are
8 uncontroverted. In discussing the various sections of 91.79
9 of the FAR, the Board, in Administrator ~~against~~ v. Michelson,
10 EA-1524, said:

11 "The hazards contemplated by subsection (d) may
12 relate to the harm that could be occasioned by the actual
13 operation of a helicopter near the surface, where, for example,
14 the downblast of air from the rotor blades might excell and
15 cause damage or injury or effect that result by moving other-
16 wise stationary objects on the ground. It is, possibly, we
17 believe, that a helicopter could create such a hazard, for
18 purposes of subsection (d), and still be at an altitude that
19 would satisfy the requirements of subsection (a). We think it
20 is unnecessary for our decision here to attempt to determine
21 whether the hazards sought to be avoided by subsection (a) and
22 (d) are the same, or whether they differ simply in degree or
23 on some other basis. Both impose a duty on pilots to exercise
24 safety-conscious judgment in altitude selection."

25 In the instant matter, the record is absolutely

1 void of any harm, damage or injury occasioned by a downblast
2 of air from the rotor blades or damage or injury resulting
3 from the downblast moving otherwise stationary objects on the
4 ground. The experience and skill of Respondent and his expert
5 witness are both impressive and persuasive.

6 In my judgment, the most credible and reliable
7 testimony indicates that the 206B helicopter, in the event
8 of engine failure, could have auto-rotated to the water
9 without inflicting damage to property on the ground or injury
10 to persons on the ground.

11 In short, it is my conclusion that there is an
12 insufficient evidenciary basis in the record to support a
13 finding of violations of Sections 91.79(a) and (d). It is
14 my further conclusion, ^{however,} that there is a sufficient evidentiary
15 basis in the record to support a finding in violation of
16 Section 91.9, in that the conduct of Respondent was sufficiently
17 careless as to endanger the life and or property of others,
18 and, therefore, warrants the imposition of a remedial and
19 deterrent sanction.

20 I find the facts of this case to be somewhat
21 similar to those involved in Administrator ^{v.} Palmer,
22 EA-102. and In that case, the facts disclosed that the
23 respondent, in the operation of a helicopter with a cameraman
24 aboard the aircraft while engaged in photographing ^a kayak
25 boat race on the Arkansas River, so operated the helicopter at

1 a low altitude over the river and hovered in the operation
2 that, had he experienced an engine stall, the helicopter
3 would have gone into the riverbed and damaged both his
4 aircraft and conceivably injured himself and the occupants of
5 the aircraft. The respondent in that case had been charged
6 with a violation of Section 91.79 (d) and Section 91.9. The
7 hearing officer, in that case concluded that operation of
8 the helicopter had not presented any serious hazard to the
9 spectators and their property on the surface. The Board
10 apparently agreed with the hearing officer and reduced the
11 sanction from a thirty-day suspension to a fifteen-day
12 suspension of the respondent's commercial pilot certificate.
13 I feel that a similar sanction is warranted in the instant
14 matter.

15 Contentions of the parties as to facts or law
16 which have not been discussed here ~~in~~ above have been given
17 due consideration and are found to be either not materially
18 significant or not justified.

19 FINDINGS AND ORDER

20 Upon consideration of all evidence of record, it
21 is found that (1) a preponderance of the substantial, reliable
22 and probative evidence does not support the facts alleged
23 in the complaint, as amended, showing that Respondent violated
24 Sections 91.79(a) and (d), but does show violation of
25 Section 91.9, and (2) safety ⁱⁿ ~~and~~ Air Commerce or Air

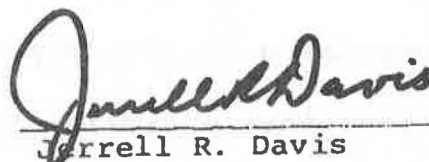
1 Transportation and the public interest require affirmation of
2 the order of suspension as modified herein.

3 It is ordered, That Respondent's commercial pilot
4 certificate be, and it is hereby, suspended for 15 days.

5 It is further ordered, That, unless stayed by the
6 timely filing of a Notice of Appeal, this Order shall
7 become effective October 10, 1981, and Respondent shall surrender
8 his commercial pilot certificate to the office of Complainant's
9 ^{mutual} regional counsel in Los Angeles, California on or before that
10 date.

11 Dated at Los Angeles, California this 29th day of
12 September 1981.

13 Edited
10/26/91
JRD



Jerrell R. Davis
Administrative Law Judge

14
15 APPEAL

16 An appeal from the decision and order herein may be
17 made by filing with the National Transportation Safety Board,
18 Docket Section, Dodge Center, Suite 301, 1010 Wisconsin Avenue,
19 North West, Washington, D.C. 20007, and serving upon the
20 other party a Notice of Appeal within 10 days from today,
21 perfected by the filing and serving of brief in support
22 thereof within 14 days from today.

23 The procedure on appeal is set forth in detail in
24 Sections 821.43, 821.47 and 821.48 of the rules of practice.

25 Off the record.

1 (Discussion off the record.)

2 JUDGE DAVIS: Back on the record.

3 There being no further matters to come before the
4 Bench in connection with this proceeding, I declare this
5 hearing adjourned.

6 (Whereupon, at the hour of 7:20 p.m., the public
7 hearing in the aforesaid matter was closed.)

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