UNITED STATES OF AMERICA
NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

Adopted by the NATIONAL TRANSPORTATION SAFETY BOARD
at its office in Washington, D. C.
on the 25th day of January 1978.

LANGHORNE M. BOND,
Administrator, Federal Aviation Administration,
Complainant,
v.
WILLIAM R. WHITACRE,
Respondent.

Docket SE-3412

OPINION AND ORDER

Respondent has appealed from the initial decision of Administrative
Law Judge Patrick G. Geraghty, issued orally at the conclusion of the
hearing held in this proceeding on May 18, 1977. The law judge therein
found that, with respect to a passenger-carrying flight (Cessna 150,
N51043) operated by respondent as pilot-in-command on April 12, 1976,
the preponderance of the evidence establishes that said flight terminated
with an engine stoppage due to fuel starvation and a subsequent crash in a
field in the vicinity of Port Columbus, Ohio. The law judge further

1/ An excerpt from the hearing transcript containing the initial decision
is attached.
found that respondent was thereby in violation of section 91.5 of the Federal Aviation Regulations (FAR). The law judge thereupon affirmed the Administrator's order, as modified to reduce the suspension of respondent's commercial pilot certificate from 30 days to 12 days.

In support of his appeal, respondent has filed a brief in which he argues, in effect, that the evidence of record does not support the

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2/ Section 91.5 provides as follows:

§91.5 Preflight action.

Each pilot in command shall, before beginning a flight, familiarize himself with all available information concerning that flight. This information must include:

(a) For a flight under IFR or a flight not in the vicinity of an airport, weather reports and forecasts, fuel requirements, alternatives available if the planned flight cannot be completed, and any known traffic delays of which he has been advised by ATC.

(b) For any flight, runway lengths at airports of intended use, and the following takeoff and landing distance information:

(1) For civil aircraft for which an approved airplane or rotorcraft flight manual containing takeoff and landing distance data is required, the takeoff and landing distance data contained therein; and

(2) For civil aircraft other than those specified in subparagraph (1) of this paragraph, other reliable information appropriate to the aircraft, relating to aircraft performance under expected values of airport elevation and runway slope, aircraft gross weight, and wind and temperature."

3/ The Administrator filed a motion to dismiss the appeal brief as untimely filed. Inasmuch as the brief was filed only 9 days beyond the due date, and since respondent appears pro se, the Administrator's motion will be denied.
conclusion of fuel exhaustion; that the law judge did not properly weigh evidence regarding a malformed venturi in the carburetor and the characteristics of 100 octane low lead fuel in a Cessna 150 type aircraft; and that the law judge's decision was based on prejudice and preconceived conclusions.

The Administrator has filed a reply opposing the appeal and urging that the initial decision be affirmed.

Upon consideration of the briefs of the parties, and the entire record, the Board has determined that safety in air commerce or air transportation and the public interest require affirmation of the Administrator's order, as modified by the law judge, whose findings we adopt as our own.

The key issue in this case is whether the emergency landing was caused by fuel exhaustion, thus indicating respondent's preflight planning in regard to fuel was deficient. Based on the testimony of persons arriving at the scene shortly after the emergency landing, it appears that only a relatively small amount of fuel leaked from the fuel tank vents after the aircraft came to rest in the inverted position. Furthermore, a more detailed examination on the following day indicated that the fuel tanks were intact and that, when the fuel tank filler caps were removed, only a small amount of fuel ran out. The investigating Federal Aviation Administration (FAA) inspector also testified that the spark plugs were checked
to be sure they were not fouled and that the engine was checked and no malfunction
of any of its systems was found. In addition, the carburetor was sent back to
the manufacturer, whose examination showed that it checked out within
the original manufacturing limits.

The FAA inspector also testified that, based on the flight times on the
eastward trip (4.8 hours total flying time) and the amounts of fuel purchased
(32.1 gallons) on that trip and at Winchester, Virginia (the originating point
of the westward trip which culminated in the emergency landing), the rate
of fuel consumption was calculated to be roughly 6.68 gallons/hour.

This rate of consumption closely corresponds to the accident flight,
on which 22.5 gallons of fuel (the usable fuel in a full tank) would have been
consumed over the 3.4-hour duration of the flight.

In view of the foregoing, it is apparent that the evidence of record
clearly supports fuel exhaustion as the cause of the forced landing.

Furthermore, the evidence concerning rate of fuel consumption
demonstrates that respondent should have known, by virtue of the

4/ Exhibit A-3. The statement in this report that "Primary venturi is
malformed" can be given no significance in view of the fact that the
carburetor was found to function properly. Moreover, the explanation
proffered by respondent that the forced landing may have been caused
by the use of 100 octane low lead fuel is not supported by any persuasive
evidence of record.

5/ The fact that the record is not clear on the precise date of the eastward
trip (it was within several days prior to the flight in question) does not affect,
in any substantial manner, the weight to be accorded the above evidence.
eastward trip, that a 3 1/2-hour flight would have been approaching the limits of endurance of the aircraft. Under these circumstances, we find ourselves in full accord with the law judge that the violation of section 91.5 has been established by a preponderance of the reliable, probative, and substantial evidence.

Finally, we have carefully examined the record and have found nothing that would indicate the law judge's ultimate findings were based on prejudice and/or preconceptions, rather than a fair weighing of all of the evidence. Rather, it appears that the law judge went to some lengths to assure respondent was apprised of his rights and the correct manner of proceeding. Moreover, the law judge's interrogation of witnesses was not designed to assist or derogate either party, but rather to assure a full and complete record on the pertinent issues.

ACCORDINGLY, IT IS ORDERED THAT:

1. The Administrator's motion to dismiss be and it hereby is denied;

2. Respondent's appeal be and it hereby is denied;

6/ Rate of fuel consumption based on actual experience with an aircraft should obviously be given precedence over rates set forth in the aircraft manual, which are predicated on optimum conditions.
3. The Administrator's order, as modified by the law judge, be and it hereby is affirmed; and

4. The 12-day suspension of respondent's commercial pilot certificate shall commence 30 days after service of this order.

BAILEY, Acting Chairman, McADAMS, HOGUE, and KING, Members of the Board, concurred in the above opinion and order.

7/ For purposes of this order, respondent must physically surrender his certificate to an appropriate representative of the FAA pursuant to section 61.19(f) FAR.
UNITED STATES OF AMERICA
NATIONAL TRANSPORTATION SAFETY BOARD

LANGHORNE M. BOND, Administrator
Federal Aviation Administration
Complainant

vs.

DOCKET NO. SE-3492

WILLIAM R. WHITACRE
Respondent

For Complainant: Joseph K. McLaughlin, Esq.
For Respondent: William R. Whitacre, pro se
PATRICK G. GERAGHTY, Administrative Law Judge

ORAL INITIAL DECISION AND ORDER

This is a proceeding before the National Transportation Safety Board held under the provisions of the Federal Aviation Act of 1958, as amended, and the Board's Rules of Practice in Air Safety Proceedings, on the appeal of William R. Whitacre, hereinafter referred to as respondent, from an Order of Suspension which seeks to suspend his commercial pilot certificate for a period of 30 days. The Order of Suspension, which is provided by the Board's Rules, serves herein as the complaint, was filed on behalf of the Administrator of the Federal Aviation Administration through his regional counsel of the Great Lakes Region.

The case is before this Administrative Law Judge,
and, as is provided by the Board's Rules of Practice, I have elected to issue an oral decision in the matter.

Subsequent to due notice of the parties, the matter came on for trial on May 18, 1977 in Springfield, Illinois. The respondent was present and represented himself, pro se. The complainant, as the Administrator, was represented by one of his staff counsel, Mr. Joseph K. McLaughlin, Esquire, of the Regional Counsel's Office, Great Lakes Region.

Parties were afforded full opportunity to adduce evidence, to call the Chairman and cross-examine witnesses and to produce documentary evidence in support of their respective cases. In addition, the parties were afforded the opportunity to make argument in support of their respective positions.

AGREEMENTS:

By pleading prior to the commencement of the hearing, it was agreed that there was no dispute as to the following:

1. That the respondent is now and was at all times pertinent herein the holder of the Airman Certificate No. 2180610 with commercial pilot privileges.

2. That respondent on April 12, 1976 acting as pilot in command operated Civil Aircraft No. N51043, a Cessna 150, with passengers aboard under visual flight rule conditions,
on a flight from Winchester, Virginia, en route to Columbus, Ohio, which was an intermediate point of destination.

3. That after the aforesaid flight had been airborne for approximately 3.4 hours, the respondent experienced an engine stoppage and made an emergency landing in an open field approximately six miles east of Port Columbus Airport.

The agreements are accepted and the matters contained in those agreements are taken as having been established for purposes of this Decision.

DISCUSSION:

The complainant seeks the suspension of a 30-day period against the respondent's commercial pilot certificate based upon the allegation that the facts and circumstances in this proceeding establish that the respondent conducted the flight in regulatory violation of the provisions of Sec. 91.5 of the Federal Aviation Regulations. Sec. 91.5 provides as is pertinent herein that a pilot in command when making a flight not in the vicinity of an airport, that is a cross-country flight in particular, is required to familiarize himself fully with reports and forecasts and, as is more pertinent here, fuel requirements for the flight and the alternatives available if the flight cannot be completed as planned.

The respondent, while admitting the fact that the
flight terminated in a crash other than he had planned it,
denies that he crashed as the result of inadequate preflight
planning, contending rather that either there was a mechan-
ical failure of the engine or that the use of 100 low-lead
octane fuel in the aircraft engine may have resulted in
some sort of condition which caused a consumption rate
higher than that which he had a right to rely upon.

I will not discuss all of the evidence in detail.
I intend to discuss merely what I consider the highlights
for purposes of the discussion in this Decision. I have,
however, considered all of the testimonial and documentary
evidence produced during the course of the proceeding. I
have also read and consider as part of the evidence in this
proceeding the testimony taken by means of the depositions
from the helicopter observer and pilot which were at the
scene of the crash shortly after it occurred.

Disposing of the deposition testimony briefly, I
think it suffices to state that it does establish that
within a short period of time one of the observers mentions
five minutes, but I would say probably within five to 15
minutes after the accident occurred, at least on the testimony
in the depositions, that control bureau helicopter arrived
at the scene of the crash and that sometime well within 30
minutes after the crash the observer and the helicopter
pilot, being in the vicinity, did look at the aircraft being
operated by the respondent while it was in the inverted position on the ground. The testimony from the observer was that he did notice some fuel leakage from the fuel vent which was on the then upper surface of the wing, the plane having come to rest in an inverted position, and that this was a dripping, and that there was a small area of dampness on the ground under the wing. He specifically indicates that it was a small area and that it was mainly a dripping from the vent that he observed.

Mr. Tector is a General Aviation District Office Inspector for the Federal Aviation Administration. He was assigned to investigate this incident. He arrived at the scene approximately an hour after the crash had occurred. He testified as to his investigation concerning the scene, his conversations with the respondent, and also inspections made of the aircraft. Essentially at the scene it was established through his testimony that the aircraft had come to rest in an inverted position, that there was no odor of aviation fuel around the aircraft, nor was there any evidence of fuel spillage when he looked at the aircraft when he arrived at the scene which, as I indicated, was about one hour later.

On the following morning, Mr. Tector along with a maintenance inspector from the district office, a Mr. Posson, went back to the aircraft which had remained in the field
overnight. At that time, Mr. Posson, who is a maintenance inspector, conducted a check of the aircraft fuel system, the props, mags, the spark plugs, and based upon that inspection determined that there was no mechanical malfunction which would account for an engine stoppage and the resulting crash. It was also established through that inspection that there was no fuel in the carburetor of the aircraft, which was significant to Mr. Tector in that there should be some fuel in the bowl section of the carburetor in the absence of the fuel having been completely exhausted and run through the carburetor.

While speaking of the carburetor, I also note that the carburetor itself was removed and inspected by the manufacturer who, following that inspection, made a report that, based upon their inspection, the carburetor was in operating condition such as would be in an original manufacture, that is there were no mechanical irregularities or difficulty with the carburetor itself.

During the second-day investigation at the scene, when Mr. Tector and Mr. Posson were there, they also noted that there was a slight drippage from the vents but, most significantly, that when they removed the fuel cell filler caps that there was only a one- to two-second spillage of fuel and that thereafter no more fuel came out of either one of the wing tanks. Pictures established the stain on the
ground that resulted, these pictures being made at the time that the caps were removed. These are small areas, the indication being that there was just a slight amount of unusable fuel that was left in each one of these tanks. Along with that, Mr. Tector also indicated that there was no indication of any rupture of fuel lines internally within the wing structure itself and that the fuel cells or tanks themselves in the wings were not internally damaged, that is they were not ruptured.

Mr. Tector, based upon his discussions with the respondent and the familiarity with aircraft, made computations which would indicate that, considering the fuel consumption on the flight made by the respondent the previous day, that is April 11, the refueling at that time and the refueling on the day of the incident, that 32.1 gallons of fuel had been placed in the aircraft. He also computed out that, based upon the fuel replaced and the time used for purposes of flight, that the fuel consumption rate established by the flight on 4/11 was 6.68 gallons per hour or 6.7 gallons per hour, rounding out. The owner's manual for the 150 Cessna indicates 22.5 gallons in usable fuel, 3.5 unusable, for a total fuel of 26 gallons in the tanks. The flight time back on the date in question was approximately 3.4 hours. Using the fuel consumption rate, as computed for the flight for the previous day, as I also worked it out on the computer
here this morning, it does indicate that in 3.4 hours at the consumption rate established by the flight time and fuel used on the previous day, that one would expend all of the usable fuel available in that particular Cessna aircraft at the point where the aircraft came down; that is, that the plane would in fact have run out of fuel in the general area of where the respondent ran out of fuel give or take maybe some variance for glides or wind, but essentially the plane ran out of fuel where it would have been predicted to run out of fuel based upon the computations.

Mr. Tector also in quite candor points out that pilots have a tendency to rely on the manufacturer's tables as produced in the owner's manual; however, that this is not a flight manual and is inherently not to be totally relied upon. He points out that good practice would be for the pilot to recompute what his fuel consumption is for his particular aircraft, also making allowance for the fact that there are many variables in normal flight conditions which would affect fuel consumption rates; and it should be further noted that the manufacturer himself puts a caveat in his owner's manual stating that the figures tabulated in there are optimum figures, that is these are figures which will show the airplane in its very best light, operated by an extremely qualified pilot under the optimum conditions, and that therefore, one should not expect to be able to obtain the
figures as listed in that manual, that is they are a guide only.

Mrs. Whitacre was a passenger in the aircraft on the date in question. She testified generally as to her husband's flight planning and the use of 100 low lead in the aircraft and the concern because of the use of that rather than 80-octane, and also the altitudes and the rpm's at which the aircraft was operating. I think it suffices to say that her testimony and the statement made by the respondent himself does establish that the respondent did make a preflight planning for this particular operation; that is, he did not just blindly go out to the airport, assume the airplane was loaded, jump in and take off. He did make an effort to plan the flight. There is also testimony, both from Mr. Whitacre and his wife, as to one quarter of a tank of fuel being indicated on the gages at the time the aircraft experienced its fuel starvation.

Mr. Tector also pointed out, as is conceded by the respondent himself, that fuel gages in small aircraft are within the experience of the aviation community not to be wholly believed either and that one really relies upon them only as a backup or as a general gage of what is being consumed or what is in the aircraft; that is, one does not turn on the switches, look at the fuel gages and say aha, the tanks are fueled merely because the gage reads full; rather that
one would open the filler caps and look in the appropriate
tanks to be absolutely sure that one was having a full
condition in his fuel tanks.

The respondent also, through testimony of his
wife and his own, seeks to establish that a great deal more
fuel was found after the crash escaping from the aircraft,
that is was on the wings and such. However, Mrs. Whitacre's
testimony was essentially opinion as to what the slickness
on the aircraft was. In any event, there is really no
dispute that some fuel was dripping out on the wing anyway
since even the Administrator's witness has indicated that
fuel was dripping out of the inverted vent onto the inverted
bottom surface of the wing; that is since the wing was in
an inverted position, what would essentially be the underside
of the wing was the upper portion of the wing.

With respect to the amount of fuel that was in the
aircraft in the time it crashed, I find that the evidence
produced by the Administrator through the testimony of the
depositions, the carburetor bowl, Mr. Tector's testimony as
to lack of odor and the fuel and what was found the following
morning, that I would resolve that issue of credibility — if
it is in fact a credibility issue — but at least resolve
the issue in favor of the Administrator on the preponderance
of the reliable evidence.

There is no evidence here which would support a
finding of mechanical malfunction in the aircraft such as
would account for the engine stoppage. The uncontradicted
testimony of Mr. Tector is that the maintenance inspector
checked the ignition systems, the fuel system, the prop,
and found nothing which would account for a mechanical
stoppage; further, that the inspection of the carburetor
itself — and from a mechanical inspection rather than
whether or not there was fuel in the bowl — also indicated
that the carburetor was in operative order. Therefore, I
cannot find, and I would find affirmatively to the contrary,
that the evidence does not establish any mechanical malfun-
tion as would account for stoppage of the engine and therefore
excuse the crash. The question of 100-low-lead fuel as
opposed to 80-octane is raised by the respondent; however,
it is merely raised as a possibility. There is no definitive
evidence that would establish that or any other mechanical
malfuction as I have already discussed it. There is no
question but that problems are being had in light aircraft
because of 100-low-lead. But I am concerned with what the
evidence produced in this case establishes here and there is
just not sufficient evidence in this case to establish a
mechanical malfunction either in the nature of a part
failure, or of a result of using 100-low-lead fuel as would
explain or excuse the termination of the flight in the manner
that it did terminate. To the contrary, I formally find for
the record that the preponderance of the reliable substantial
and probitive evidence does establish that the aircraft
ran out of fuel because of a consumption rate higher than
that expected by the respondent, one that he did not adequat-
ely plan for, and that the aircraft terminated in the crash
because of a fuel starvation condition.

I have already indicated and referred to you
previously I feel that the respondent on the evidence here
did make an effort to adequately preflight plan his trip.
I think, however, what occurred here was that an over-reliance
was place by the respondent upon the owner's manual and
possibly not sufficient accounting made as to the variabilities
which will change those figures for a particular aircraft,
and that therefore, he did not properly account for the
fact that his fuel gage might have been reading "fuel" when
in fact it wasn't, that consumption rate is going to be
affected by other than standard temperatures, turbulence,
engine time, engine wear, and that one cannot just take a
figure out of the book and blindly apply it. On the other
hand, one cannot dismiss the fact that the owner's manual
is published, at least impliedly, under the auspices or
permission of the Federal Aviation Administration, and that
pilots do rely upon them for purposes of their flight plan.
I think the way the books are constructed at times lay traps
for the pilots because they put the tables in one section,
section three or something, and they put all the warnings about how you are supposed to use the tables in section one or someplace else hidden away, and the poor pilot doesn't realize that the figures, being derived figures, may not and in fact probably will not, be the figures that he will be operating with.

I think that the respondent, considering that he was a commercial pilot and that he experienced the flight the day before, should have been on notice from the amount of fuel that he had to put back in the aircraft that his fuel consumption rate was other than that posted in the manual, and I think he was on sufficient notice. However, balancing against that is the fact that he does have some right to rely in some degree on the owner's manual, otherwise we might as well throw the owner's manual in the garbage.

That being the case, I do not propose to affirm the Administrator's Order as issued. I do find formally, however, that, by virtue of all of the facts and circumstances established during the course of this proceeding by a preponderance of the evidence, that there has been, and I formally do conclude, established a regulatory violation of the provisions of Sec. 91.5 on the part of the respondent while he was operating as pilot and commander of the flight on April 12, 1976.

However, in light of the fact that a conscientious
effort was made, albeit perhaps not to the degree that we would hope for because that would have resulted in a successful flight, yet there was a sufficient intent to comply with the Regulation, possibly just a slight oversight and not being aware of the fact that his fuel consumption was other than what the manual said. I believe a reduction in the period of suspension to a period of 12 days would adequately serve the purpose of educating the respondent to not get himself in this position again and to deter other pilots who might find themselves similarly situated or so disposed, at least I hope it would do that.

FINDINGS OF FACT AND CONCLUSIONS OF LAW:

Upon consideration of the record in its entirety, from my observation of the witnesses and their demeanor, I make the following specific Findings of Fact and Conclusions of Law:

1. That the allegations contained in paragraphs one through three of the Complaint are established.

2. That issues of credibility in this proceeding have, for the reasons stated in the discussion, been resolved in favor of the Complaint.

3. That the respondent's flight of April 12, 1976, upon the preponderance of the reliable and probative and substantial evidence produced during the course of this proceeding, does establish that the subject flight terminated
with an engine stoppage due to fuel starvation and a
subsequent crash in a field in the vicinity of Port
Columbus, Ohio.

4. That the totality of the facts in evidence
produced in the proceeding establishes that the respondent
operated the aircraft in regulatory violation of the
provisions of Sec. 91.5 of the Federal Aviation Regulations,
and further that safety in air commerce and air transporta-
tion and the public interest do not, however, require
affirmation of the Administrator's Order of Suspension as
issued, but rather that the period of suspension be modified
for the reasons set forth in the discussion.

ORDER

IT IS THEREFORE ADJUDGED AND ORDERED:

1. That the Administrator's Order of Suspension and
the Complaint herein, as amended, be, and the same hereby is,
affirmed as hereinafter modified.

2. That the Administrator's Order of Suspension be
modified to provide for a period of suspension of the
respondent's commercial pilot certificate No. 2180610 for
a period of 12 days.

3. That the respondent be, and he hereby is, ordered
to surrender his commercial pilot certificate No. 2180610
within 11 days from the date of issuance of this Order to
a representative of the Federal Aviation Administration and
that said certificate be suspended for a period of 12 days as provided for in this Order. If the respondent surrenders his certificate on or prior to the effective date of this Order, the period of suspension shall commence to run as of the date of the physical surrender of the certificate; however, if the respondent fails to surrender certificate on or before the effective date of this Order, the period of suspension imposed herein shall continue to be in effect until the certificate shall have been physically in the possession of the Federal Aviation Administration for a period of 12 days.

APPEAL

Either party to this proceeding may appeal this oral Decision and Order.

The appellant shall file his Notice of Appeal within ten days after service upon him of this Decision and as it is an oral Decision today constitutes service and must within 40 days after service upon him of this Decision file a brief in which are set forth his objections to this Decision and Order. The Notice of Appeal and the brief shall be filed with the National Transportation Safety Board, Docket Section, 800 Independence Avenue, S.W., Washington, D.C. 20594, with copies of all documents served upon the other party.

If no appeal to the Board from either party is
received within the time allowed or the Board does not on
its own motion review this oral Decision and Order, the
Decision and Order shall become final. The timely filing
of an appeal, however, shall stay the order contained in
this oral initial Decision.

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The Oral Initial Decision and Order of William R. Whitacre
was issued under Docket Number SE-3492. The correct docket number for
the Whitacre Case should have been Docket Number SE-3412.

Oral Decision and Order was issued on May 18, 1977.