Appendix H
Student Pilot Codes

- Code Families
  - ACTION
    - ANALYSIS
    - ASK4ASSIST
    - CALMDOWN
    - NEGATIONS
    - TIMEOUT
  - CONCERNS
    - HESITANT
    - LACKKNOWLE
    - LACKOFEXP
    - PRESSTOACT
    - SAFETY
    - STRESS
    - TIME
    - UNCERTAIN
    - UNCOMFORTA
    - WEATHER
    - WHATOTHDO
  - HAZATTITUD
    - CONFUSED
    - IMPATIENT
    - IMPULSIVE
    - INVULNERAB
    - LITTLEINFO
    - MACHO
    - OUTSIDEFAC
    - SKIPPROCEED
  - PLAN
    - ADDITINFO
    - ALT#1
    - ALT#4
    - ALTPLAN
    - COMFORTLEV
    - CONVINCEOT
    - DEFINECOND
    - DETERFACTR
    - EXPERIENCE
    - KNOWLEDGE
    - NOTOPTION
Appendix H
Student Pilot Codes

DISSSP: Code Book--Family Tree

OPTIONS
  PRIORITY
  RULES
  UNITEDWEST
## Appendix H

### Student Pilot Codes

<table>
<thead>
<tr>
<th>Code Word</th>
<th>Parent</th>
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<td>ACTION</td>
<td>None</td>
<td>PAR</td>
<td>1</td>
<td>07/19/01</td>
<td>07/19/01</td>
<td>Actions taken by SP</td>
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<td>ADDITINFO</td>
<td>PLAN</td>
<td>Yes</td>
<td>2</td>
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<td>(Additional Information) SP seeks to acquire more data about the scenario or conditions related to the scenario</td>
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<td>ALT#1</td>
<td>PLAN</td>
<td>Yes</td>
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<td>(Alternative #1) SP discusses his first choice, among the four alternatives presented in the scenario.</td>
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<td>ALT#4</td>
<td>PLAN</td>
<td>Yes</td>
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<td>(Alternative #4) SP's last choice among the four choices listed for a particular scenario.</td>
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<td>ALTPLAN</td>
<td>PLAN</td>
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<td>(Alternate Plan) SP discusses a back-up plan</td>
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<td>SP expresses thoughts about how he would go about finding a solution to the scenario or problem and/or the importance of thinking carefully through a problem.</td>
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<td>ASK4ASSIST</td>
<td>ACTION</td>
<td>Yes</td>
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<td>SP talks about receiving help or assistance from others.</td>
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<td>CALMDOWN</td>
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<td>SP discusses how he and/or others should attempt to relax and not become too emotional</td>
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<td>COMFORTLEV</td>
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<td>(Comfort Level) SP discusses what he feels good about doing -- feels that a specific action(s) will not present a threat (a bit of a cocky attitude) and will possibly make things better.</td>
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### Appendix H

**Student Pilot Codes**

**DISSSP: Code Book—All Code Words**

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<td>2</td>
<td>07/20/01</td>
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- **CONCerns:** SP expresses apprehension or events that appear to be threatening.
- **CONFUSED:** SP demonstrates either a lack of knowledge or experience that results in confusion or what may be ignorance of a procedure or proper course of action.
- **CONVINCEOT PLAN:** (Convince Others). SP attempts to talk others into taking action(s) he deems positive.
- **DEFINECOND PLAN:** (Define the Conditions) SP attempts to understand or appreciate the complexities of the scenario by stating the specific situation (conditions) that exist.
- **DETERFACTR PLAN:** (Determining Factors) SP discusses the conditions necessary for him to act or conditions that act as a catalyst for action.
- **EXPERIENCE PLAN:** SP discusses his prior flights and events that occurred during those flights.
- **HAZATTITUD:** (Hazardous Attitudes) SP reflects thought processes or actions that could result in inappropriate selection of alternatives and/or result in negative outcomes.
- **HESITANT CONCerns:** SP discusses how he would be reluctant to act in a manner which he considers to be too quickly and/or seems to be uncertain about an appropriate course of action or alternative.
- **IMPATIENT:** SP or pilot in scenario is not willing to wait -- seems in a rush to accomplish a goal.
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<td>Yes 2 SP is not willing to wait -- acts prior to acquiring sufficient data or thinking adequately about alternatives</td>
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<td>INVULNERAB</td>
<td>HAZATTITUD</td>
<td>Yes 2 SP's statements indicate that he believes that something negative or harmful will not happen to him</td>
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<td>KNOWLEDGE</td>
<td>PLAN</td>
<td>Yes 2 SP expresses understanding or appreciation of problem, circumstance or situation</td>
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<td>LACKKNOWLE</td>
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<td>Yes 2 SP in unaware of relevance or importance of information</td>
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<td>LACKOFEXP</td>
<td>CONCERN</td>
<td>Yes 2 (Lack of Experience) SP discusses how either he and/or others do not have much in their respective backgrounds that would enable them to cope effectively with a particular problem</td>
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<td>LITTLEINFO</td>
<td>HAZATTITUD</td>
<td>Yes 2 SP bases decision or course of action/alternative selection on insufficient data</td>
<td>07/20/01</td>
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<td>MACHO</td>
<td>HAZATTITUD</td>
<td>Yes 2 SP expresses an attitude that he can do something that he very likely is not competent to do</td>
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<td>NEGACTIONS</td>
<td>ACTION</td>
<td>Yes 2 Actions (or actions not taken) that are obviously not going to help a situation but, rather, are likely to make things worse and/or involve significant risks</td>
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<td>NOTOPTION</td>
<td>PLAN</td>
<td>Yes 2 SP discusses how a particular course of action would not be considered</td>
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### Pilot Decision-Making

#### Appendix H

**Student Pilot Codes**

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<td>RULES</td>
<td>PLAN</td>
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</table>

- **OPTIONS**: SP discusses how he would attempt to provide himself with one or more alternatives and/or discusses the alternatives.
- **OUTSIDEFA**: (Outside Factors). SP seems to be willing to allow outside factors to affect his decision-making.
- **PLAN**: SP discusses or summarizes his course of action, decision and/or the importance of planning.
- **PRESSTOA**: (Pressure to Act). SP discusses stress, influences or concerns that may cause him to take certain actions.
- **PRIORITY**: SP discusses what he would do first, what he would emphasize in his thought process, a generally favorable course of action or an important lesson that should be followed.
- **RULES**: SP seems concerned about following procedures, guidelines and lessons that he has been taught by instructors during training - OR - breaking of rules of his instructor or the FAA.
- **SAFETY**: SP discusses conditions or events that could lead to a hazardous situation.
- **SKIPPROCED**: (Skip Procedure) SP discusses circumstances surrounding his neglecting to perform a task or procedure.
- **STRESS**: SP discusses situations that may put pressure on him to act.
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<td>CONCERNS</td>
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<td>SP discusses how time is an important element in his decision-making process.</td>
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<td>ACTION</td>
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<td>SP discusses how he needs time to re-evaluate the situation.</td>
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<td>UNCERTAIN</td>
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<td>SP seems to be unsure of what to do. Talks about what he &quot;may&quot; or &quot;probably&quot; do. OR SP discusses the ambiguities that pertain to a scenario.</td>
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<td>UNCOMFORTA</td>
<td>CONCERNS</td>
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<td>(Uncomfortable) SP discusses conditions under which he feels uneasy.</td>
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<td>UNITEDWEST</td>
<td>PLAN</td>
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<td>(United We Stand) SP discusses their belief that there is power in numbers. (e.g., if more than one pilot requests a particular runway, ATC will be more apt to grant the request).</td>
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<td>CONCERNS</td>
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<td>SP discusses meteorological conditions that could effect his decision.</td>
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<td>WHATOTHD0</td>
<td>CONCERNS</td>
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<td>Decision-making effected by actions or thoughts of others. Appears to be looking for guidance/answers from others. OR expresses a blatant disregard for what others do/think.</td>
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Appendix I

Student Pilot Coded Transcripts

Coded Version of SP1SCL  9/2/01 8:50:59 AM  Page 1

SP1SCL  March 28, 2001   1

ELD: We'll take a look at the first scenario. Let you take a few minutes and read it over and then we'll discuss it.  3

SP1: OK. [SP1 reads Scenario 1]. So this says right here ahhh, winds at 280 at ten knots gusting to 17. They want you to land on [runway] 35.  8 11

ELD: Uuhh  13

SP1: OK  15

ELD: That's correct  17

SP1: OK. Well, what I would do is ahhh. The Piper Cherokee is in front of me and...  19 21

ELD: That's correct  23

$-WHATTOHO
SP1: So, ahhh, I would see what the Piper Cherokee would do. If he would try, try to land. If he would try to land on [runway] 35 and he kind of looks a little unstable, I would think that there. wouldn't think about landing there.  25 -S

$-DEFINECOND
Ahmm, I would, if he looks kind of stable, then I would go ahead and give 31M -#

$-CONCERN
it a try. But if I wasn't feeling right, that, you know, blowing around too much, then I would just go ahead and go around [abort the landing] and 33M -#-$

$-ALTPLAN
I guess I would depart the pattern and go to that, that alternate airport that you have right here [referring to the written scenario]. Ahmm, [pause] I 37 -#

$-UNITEDWEST
might even, I might even ask, like you said the Piper Cherokee asked to land on ahmm [runway] 28. And they said it was inoperative [sic], you know it was 40 -#-$

not working, so, if I'm goin' around and, and try to land and I couldn't and I went around - I would probably think twice about going to this other airport that was twenty miles away. So I would, I would ask again 'cause I 44 48 49

guess maybe if you know, two people asked, they may open up the runway, 50 51 52

$-PLAN
you know. I'll tell them ahhh, you know, the winds are favoring ahhh [runway] 28 so, you know, can you let 53 -#-$

$-ALTPLAN
us land on 28? If they wouldn't, then I would probably go to ahhh, the other airport [20 miles] North.  56 -#-$
Appendix I
Student Pilot Coded Transcripts

Coded Version of SPISCI  9/2/01 8:51:00 AM  Page 5

How would those accumulated 243
experiences affect the way you're 244
thinking about handling this 245
situation. Or would it have an 246
effect? 247

#-HESITANT
SPI: Yeah, I think it would affect. 249
I think it would affect me. Ahmm, I'd 250
be, I would probably be hesitant to 251
land, first of all but ahmm, you know 252M

#-EXPERIENCE
I have landed in ahmm strong cross 253
winds. You know, I'm a little shaky, 254
but I've done it, but I wouldn't want 255

do it all the time. So that, 256

#-HESITANT
that's one thing. Ahmm, if I had to do 257
it then, you know, you know I would 258

#-DEFINECOND
definitely try, but if I wouldn't, if 259
it was 17 knots gusting. Ahhh, I 260
don't know, probably think a couple 261

$-WHATTHODO $-OUTSIDEFACT
of times. What watching the guy in 262M
front of me would probably help out a 263
little bit. Probably help out a 264
little bit. That's probably, I guess 265
that's probably one thing, you know, 266

#-LACKOFEXP
I, I don't have that much experience 267

$-WHATTHODO $-OUTSIDEFACT
in cross winds. So maybe me watching 268
somebody to see how bad it really is 269
to do. 270

ELD: As you go through the decision 271
process here. Is there more than one 272
decision that you need to make as you 273
look at this whole scenario? 274

SPI: [unintelligible] 275

ELD: Could you talk about, could you 276
talk a little bit about the different 277
decisions you have to make here? SPI: 278
OK. Ahmm, well, the different 279
decisions that I would do? Something 280
different I would do? 281

ELD: [nods yes] 282

#-DEFINECOND $-ADDITINFO
SPI: Ahmm, well I could, you could 283
radio into the, the Piper [other 284
aircraft] and ask him, you know, how 285
bad was it? Was there a strong cross 286
wind? And how bad was it gusting did 287
you find when you came, came into 288
land? How bad was it? Ahmm, another, 289
another one to do would, would 290
probably be going ahead and just 291
trying it. You know, I would like to 292
have a little bit more information 293

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before I would do it. 300 -$

ELD: Could you talk about what 302
additional information you would like 303
to have?

#-ADDITINFO
SPI: What additional information? 306 -$
  Ahmm, probably what the winds are at 307
  that, right at that point. Ahmm, 308
  additional information. I'd probably 309M
  tune into AWOS [automated weather 310
  information service] maybe if I was, 311
  when I was in the [traffic] pattern to 312
  see how bad it really was. Ahmm, 313 -$
  that's pretty much what I would do. 314

ELD: All right. Let me ask you this. 316
  You mentioned that you might, if worse 317
  came to worse, go to the other 318
  airport?
  319

SPI: Right 321

ELD: Different airport there...

SPI: Right 325

ELD: Ahmm, could you talk to me a 327
  little bit about your thought process 328
  about going there. Under what - what 329
  would be the determining factors that 330
  would make you decide to go to that 331
  other airport?
  332

SPI: The determining factors? Well...

ELD: What would you be thinking 336
  about?
  337

#-PRIORITY
SPI: Ahmm, well I would try to land 339 -$

$-UNCOMFORTA $-DETERFACT
on [runway] 35. If it was shaky the 340 -$-$
  first time, ahmm, you know, I wouldn't 341
  feel comfortable landing. So that 342
  would, that would probably be the 343

$-ALTPLAN
determining factor. If I felt 344M -$
  comfortable or not. If I didn't, I 345
  would think about, you know, I would 346
  start, probably start planning to head 347

$-HESITANT
up to ahh, you know, the Southside 348 -$
  airport 20 miles away. Again, 20 349
  miles away so, you know, it's a 350
  little, a little bit of a haul but 351
  ahmm, it's better than, than 352
  struggling and trying to land 353

$-CONCERNS
here. And another thing is if you, 354M -$-$
  let's say if ahh, you want, another 355
  thing that I would probably think 356
  about is how bad are the winds over at 357
  the other airport? They could maybe, 358
  you know, they may have the same, you 359
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#-PLAN
SP1: What I'm going to be thinking about now. Well, if I couldn't land here, I would probably think about how much fuel I need to get over to this other airport. Ahmm, if I had enough fuel to get over there then I would go ahead and try it. Now if I didn't have any fuel, ahmm, I would ahhh, I'd probably try to ahhh, land it on [runway] 35 maybe two, three times. 551 -#-

#-ALTPLAN
If I didn't feel comfortable and I couldn't get it down, ahmm, again I would tell them I would call the airport and see if they wouldn't open up [runway] 28. Say, 'I have a problem, you know, the cross winds are too strong, I'm low on fuel, I'm not an experienced pilot, I would probably, you know, feel more comfortable if you open up 28.' 561 -#

#-WEATHER
ELD: And suppose they said '35 is the active.'

#-LACKOFEXP
ELD: All right. In this particular scenario. In a lot of these scenarios there's some things you're certain of and there's some things you're kind of uncertain of...

#-PLAN
ELD: ...what I'd like you to think about for just a minute and if you could discuss it for just a few minutes. What things in this scenario are you certain of and what things in this scenario are you not so sure of? 585

SP1: Right 578

ELD: Not so sure of. Well, not so sure of part. Probably be, the I wouldn't be so fond of the gusting winds] 17 knot crosswind, I wouldn't be so fond of that. Maybe if it was a little steadier it would be, you know, a little easier. The gusting I would, I would be ahhh kind of scared of. 594 -#

#-CONCERNS
Ahhh, [pause] if I was low on fuel, that's one thing. Low on fuel, ahmm, that's about it, everything else I
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alternative 'asking to use runway 28.'  841

SP1: Right  843

ELD: What was so good about that?  845
Why was that number one?  846

#-RULES
SP1: Why was it number one? Well,  848 -#
the wind is ahhh, favoring 28 a lot  849 |
more than 25 [meant to say 35]. Ahmm,  850 |
that, that's the main, that's the main  851 |
reason why I would ask. Ahmm, that  852 |
would probably be the only reason why  853 |

$-HESITANT
is the winds. It would be a lot  854 -$-
854 easier probably to land on 28 then on 855 |
25.  856 -$

ELD: Could you talk about why your  858
number one choice is you're asking to  859
use 28 and then your not going to  860
insist on using 28 until you try 35.  861

SP1: Yeah  863

ELD: I'm not sure if I'm reading you  865
right but would you be a bit reluctant  866
to insist on using 28?  867

SP1: Yeah, yeah, I would  869

ELD: Tell me what your thinking is  871
about that?  872

#-DEFINECOND
SP1: Well, I, I wouldn't want to go  874 -#
ahead and just, you know, tell them  875 |
'I'm gonna land here because you don't  876 |
know what they're using the runway  877 |
for. It may be closed down for  878 |
construction. Something may be out,  879 |

$-UNCOMFORTABLE #-SAFETY
you know. Ahmm, and if I insisted to  880 -$-
use 28, and said 'I'm gonna land on  881 |
28' and I just started going there, I  882 |
would have to worry about other  883 |
traffic too. You know, it may, it may  884 -$
distract the other, you know, planes  885 |
in the pattern so that would be  886 |

#-RULES
another thing ahhh. I would  887 -$
definitely want permission to land  888 |
there because I wouldn't want any  889 |
trouble. [laughs]  890 -$

ELD: What kind of trouble do you  892
think you might get into?  893

#-RULES
SP1: Well, I don't know. Ahmm, FAA  895 -$
may have some questions about that.  896 |
You know, ahmm, other people may, you  897 |
know, be kind of ticked at me, you  898 |
know, because, you know, a little bit  899 |
of distraction in the pattern. Ahmm,  900 |

900
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the runways cross like it shows here [referring to the runway diagram that is depicted on paper with scenario] that may be ahh a problem too. 901 902 903 904 904

ELD: Why do you think other people might be ticked at you? 906 907

$-SAFETY $-DEFINER

SP1: Ahmm, lets say if, if they're using the pattern for 35 and uhh, I just go ahead and use the pattern for 28, I may, you know, fly, I may cut someone off, or you know if I'm coming in landing, another plane could be landing at the same time on 35. And maybe, you know, we may collide on the runway. That, that may be ahh, a big factor. That's one thing I would think about. 909 910 911 912 913 914 915 917 918 919 919

ELD: You're talking about just landing on 28 without permission? 920 921 922

$-SAFETY

SP1: Yeah just saying 'I'm gonna land on 28, I don't care what you guys say, I'm landing on 28, I feel safer.' And 924 925 926 926

$-RULES

then the, ahh, I would definitely want permission before [he lands] because then I wouldn't have to worry about people yelling at me. You know, maybe the FAA coming out and I'm going to have to answer questions. You know, I don't want to have to go through all that hassle. 927 928 929 930 931 932 933 934 934

ELD: As you look at this whole scenario that we've been talking about so far. Do you think there is a lesson here that a ahh student pilot or any pilot for that matter could learn from this particular scenario about how to think through something like this? Is there a lesson in this whole thing? [interviewer is stretching out the question to provide SP1 with more time to develop a response] 936 937 938 939 940 941 942 943 944 945 946 947

$-ANALYSIS

SP1: Ahmm, there probably is a lesson but I ahh, I think it would definitely make people think. You definitely have to be thinking. Ahmm, 949 950 951 952 952

$-RULES

[pause] I think ahh, the lesson is that ahh, if you feel comfortable landing then go ahead and give it a 953 954 955 955

$-SAFETY

try. Now if you know that, if you never had a gusting ahh, crosswind of 17 knots then I don't think it's safe to go ahead and try to land there. 956 957 958 959 959 959

$-HESITANT
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You know, it's I guess maybe, you know, personal preference, you can do, what you can't.

ELD: Just out of curiosity, have you landed in a 17-knot gusting crosswind?

SP1: Ahhh, no [laughs]

ELD: What was the highest crosswind you've landed in so far, approximately?

SP1: Ahhh, about 15 [knots]

ELD: And how did that, how did that go?

$-EXPERIENCE
SP1: A little shaky. A little shaky. The first time ahh, the first time it was good. Ahhh, you know, I didn't have no problem. The

$-CONCERNS
second time I noticed the winds were changing a lot more and, you know, that, that kind of, you know, I was being thrown around a little bit. I got nervous ahhm, then the third time I called it quits [unintelligible --

$-LACKOFEXP
laughs]...I'm not doing this again. So, I know, I know that [with] 15 [knots] I probably wouldn't want to land in a

$-RULES
15-knot gusting crosswind again. I know, I think that's the max. for a [Cessna] 152 a 172. I wouldn't go over that.

ELD: But you said that you would try to land there with a 17-knot gusting crosswind.

$-INVULNERAB $-MACHO $-IMPULSIVE
SP1: Yeah, I would try. You know, if, if that was my destination, I had something to do, I would try, you know, there's a first, first time for everything. So I would try but I would be very cautious. Very cautious because I know I only landed in a 15- knot gusting crosswind and 17 knots is gonna be even worse. So, you know, ahh, I would definitely be very

$-RULES
cautious. I would know that this is my limit and this is over my limit.

$-PLAN
Give it a try and if it's definitely too much I'd go around.

ELD: You mentioned that ahhm, when you talked about lessons, you mentioned that ahhm, this is something people definitely have to be thinking
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about. You also mentioned that you
would need some time to think this
 thing through.

SPI: Yeah.

ELD: I mentioned about the fuel being
 a consideration.

SPI: Yeah.

ELD: Let's say you're in this
situation and fuel is a consideration
and you need to be thinking about
this...

SPI: Right.

ELD: ...you need time to think about
this. What are you going to be doing
to get the time you need to think
about this situation that you're in?

#-PLAN
SPI: I'd probably depart the pattern,
not far. Not more than five miles

$-CALMDOWN
out. Depart the pattern for a little
bit, try to calm myself down, think
about, you know, what I should do.

$-RULES
You know now if I didn't have no fuel
I definitely wouldn't want to go too

%-PRIORITY %-CALMDOWN
far. And ahhh, the first thing would
probably be trying to calm myself'
down. But trying to, you know I would
definitely have to leave the pattern

%-RULES
to calm myself down. If you're in the
pattern, you always got to look for
airplanes. You've got to make sure
you're at the right altitude, stuff

#-PLAN #-CALMDOWN
like that. So I would depart the
pattern so I could calm myself down.
Ahhh, think about, you know, some,
think about, you know, what I should
do. That's, that would basic, that's
what I would do. I wouldn't try to
stay in the pattern.

ELD: Let's say you left the pattern
and you're in the process of trying to
calm yourself down.

SPI: Right.

ELD: Think out loud about what you're
going to be thinking about.

SPI: Ahhh [laughs] what I'm thinking
$-CALMDOWN
about. Well, ahhh, I'll probably be
'ahhh, got to calm myself down, I got

$-PLAN
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you do that if the engine wasn't sounding... 798 799

#-NEGATIONS
SP1: Yeah, if it was just getting real bad. Like it was getting worse and worse and worse and worse very fast. 801 802 803

#-PLAN
Then I wouldn't try to keep everything on. I would just go ahead and shut everything off. 804 805 806

ELD: Now, when you say 'shut everything off.' Talk to me a little bit more about that. What would you be shutting off? 808 810 811

#-NEGATIONS #-PLAN
SP1: Ahh, I would shut off the fuel ahhh, I would call in before anything and tell them, you know, what my situation is, shut my fuel off, shut my electrical off, shut, you know, pull that ahhh, throttle back. Shut off my mag and masters. Basically everything I would shut off. 813M 814 815 816 817 818 819 820

ELD: And, at that point, you would of course be going down. 822 823

SP1: Yeah, yeah I'd be going down. I'd probably, are, [unintelligible] 825 826

#-PLAN
I would, you could definitely be looking for a field before I would shut off my engine and stuff. Or have something in site. 827 828 829 830

ELD: As you look over all of these alternatives, what would you consider to be the absolutely best alternative that could happen in this situation. And that could be a combination of all of these things [alternatives] or... 832 833 834 835 836 837

SP1: Uuhh 839

ELD: ...it could be one or the one you already picked as your number one or it could be a kind of combination of those. If you found yourself in this situation, what would be, in your opinion, the best... 841 842 843 844 845 846

SP1: The best... 848

ELD: alternative 850

#-PLAN
SP1: Ahmm, if I had to pick from these situations the two things I would pick is ahhhh, 'b, push in the carburetor heat, keep the engine running and... 852M 853 854 855

$-ALZPLAN
divert to the closest airport' and if that didn't work then I would pull the 856 857
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SP1SC3 March 28, 2001

ELD: All right, the third scenario 3
deals with a cross-country flight 4
[more than 50 miles] that you're on... 5

SP1: OK. 7

ELD: You arrive at your destination 9
airport, you're pre-flighting the 10
airplane to go home... 11

SP1: Right. 13

ELD: And there is a problem. So I'll 15
let you read it over. 16

SP1: OK. [SP1 reads scenario 3] 18

ELD: All right, so there you are with 20
this problem. Talk to me a little bit 21
about your thought process about this 22
whole situation. 23

$-PRIORITY
SP1: Ahmm, well, the first thing I 25 -$
would think about is if the plane, 26 |
excuse me, if the plane is able to fly 27 |
with the flaps retracted thirty 28 |

$-ADDITIVE
degrees. Ahmm, I'll open the POH 29 -$-
[pilot's operating handbook for the 30 |
airplane he is flying] and see what 31 |

$-SAFETY
the requirement is. If it can fly or 32 | -$

$-DEFINITION
if it's unsafe to fly. That's what I 33 -$-
would probably be thinking about. If 34 | |
it's safe to fly, landings, takeoffs, 35 |
in-flight. Then how could the 36 -$
[unintelligible] be. That's what I 37 |
would be thinking about. First thing. 38 -$

ELD: Let's say you either didn't have 40
the POH with you... 41

SP1: OK. 43

ELD: ...or, the POH did not say 45
anything about, specifically say 46
deal about flying with thirty 47
degrees of flaps or taking off with 48
thirty degrees of flaps. Let's just 49
say, for example, it said 'short field 50
takeoff procedure - 10 degrees flaps.' 51
And that's all it said. 52

$-HESITANT  $-PLAN
SP1: That's all it said. Then I 54 -$-
would probably just leave the plane 55 |
there [laughs]. Probably leave the 56 |
plane there. Ummmm, I wouldn't try to 57 |
fly it ummm, no. Said [the scenario 58 -$
says] I have ahh student pilot at, at 59 |
home trying to take his private, 60 |
private pilot's flight test in a 61 |
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ELD: The attendant helps you get the 539 flaps up and you had your friend 540 [waiting to take his checkride]… 541

#-ANALYSIS
SPI: Ahmm, I wouldn't, I don't think 543 -# so, because, ahhh, let's say if I can 544 get my flaps up - basically I get my 545 flaps up and I can get home. Then 546 when the plane's at, you know, at the 547 home base and he has his checkride in 548 what, four hours it said. You know, 549 the plane has to be put in the shop, 550 you know, the mechanics have to work 551 on it. It may take a little, it may 552 take a day or two maybe to order 553 parts. So, it's not ahh, a big rush. 554 -# I wouldn't say 'make me go on his 555 account.' I'll just want to go on my 556 account - go home on my account 557

$-OUTSIDEFAC
because, you know, I'm stuck here at 558 -$ this airport, you know, I've got to 559 spent some money on a hotel maybe and 560 a cab. But, I wouldn't do it because of 561 on, on his account. 562 -$ 563

ELD: Ahmm, can you talk a little bit 564 about how stress, in this particular 565 scenario, might factor into your 566 ahh, decision-making process or your 567 thinking on this whole scenario. 568

#-STRESS
SPI: Ahmm, I think the only stress 570 -# that would come down is ahh, getting 571 back to ahh, my ahh, home, home 572 airport to let my friend take his ahh 573

$-OUTSIDEFAC
his private pilot check ride. You 574 -#$-$ know, ahhmm, of course you know, I want 575 my friend, you know, get his 576 checkride, do well, you know, have, 577 have this plane up flying and ahh, 578 that would make me want to, want to go 579

#-CONCERNS
more. You know, I would want to leave 580 -$-$ maybe some, you know, but it wouldn't 581 necessarily stress me out like if, if 582 I was maybe in, in, in-flight 583 situation. 584 -#

ELD: OK. When you look at this 586 scenario, is there any additional 587 information that you would like to 588 have that's not specifically stated in 589

$-ADDITINFO
this scenario? SPI: Ahmm, the ahh, 590 -# the POH [Pilot's Operating Handbook]. 591 All the limiting factors of, you know, 592 the aircraft and the flaps retract. 593

$-LITTLEINFO
That's one thing that would be nice to 594 -$ have. Ahmm, basically that's it. 595 -# That's the one thing I would want to 596
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#-SAFETY
SPI: Ahmm, well, it would, it would be the safest. I wouldn't put myself at risk. Ahmm, I wouldn't be stressed out about flying the plane, you know, with thirty degrees flaps down. I would also have a certified mechanic doing the work so I wouldn't be worried about, you know, 'is the work done right' and is anything gonna happen in flight? Basically just getting it done right. Ahmm, my second choice was 'have the attendant reset the switch and get the flaps up and fly home.' That, that would be my second choice, ahmm, then again I probably wouldn't let, have the attendant, you know, do all the work himself. I would probably, you know, tell him, you know, looking over my shoulder and me doing the work and ahh, definitely make sure the flaps don't, are up and locked and don't move.

ELD: Talk to me a little bit more about your second choice. Why would you pick that as number two?

SPI: Ahmm, well, the other choices are 'have the attendant change the switch.'

ELD: Uhhuh.

#-ANALYSIS
SPI: I wouldn't want him taking stuff in and out, you know, taking parts in and out of ahh, you know, the plane.

#-DEFINITION
He's not a mechanic, and ahh, you know you could ahh, you know, you could make some trouble and he's not a certified mechanic [referring to the attendant], that's one, one thing.

#-NEGATIONS
Ahh, and then the, the last one was ahh, 'fly the plane with the flaps down' and I wouldn't want to do that so that's why I picked, you know, 'have the attendant change the switch and just put, keep the flaps up and fly home. I think that would be the next reasonable thing to do.

ELD: So, if I'm hearing you correctly, you, you would, as you mentioned previously, you would let, allow the attendant to try to help you raise the flaps.

#-MACHO
SPI: Yeah, I would let him help me
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try to raise the flaps. Then again, I wouldn't let him do all the work. I know I wouldn't have him looking over my shoulder and, you know, telling him what to do. You know, telling him, telling me what to do.

ELD: And, your last choice again?

#-ALT#4

SPI: My, my last choice was ahh, leaving the flaps down and flying.

ELD: Why, why would that be your last choice?

$-SAFETY $-HESITANT $-UNCOMFORTA

SPI: Because, ahhmm, I'm not too sure what, ahhhh, leaving the flaps down and flying 35 miles to the next airport with the A&P, that's what it...my last choice was. Aahmm, I wouldn't want to fly, I wouldn't feel safe flying with 30 degrees flaps down. Aahmm, I'm sure it's been done.

$-LACKOFEXP

I, I don't particularly fly with the

$-NEGATIONS

30 degrees flaps down all the time. I don't think it's, you know, that good of a practice too, so I wouldn't do that.

ELD: And, your first choice, again was?

#-ALT#1

SPI: Wait until a ahhhh, a flight school can send a ahhah A&P out to change the switch.

ELD: And your, and your thinking about that?

SPI: My thinking about the first choice?

ELD: [nods]

$-SAFETY

SPI: Aahmm, would be that, that would be the you know, the right thing to do. And the safest. I would know it was done right. I know it was done by a certified by mechanic who knows what he's doing. He's probably done it a couple times. Aahmm, you know, other than that, that would be the only reason why I would pick that because it's the safest thing. Basically the safest way to go.

ELD: Do you, do you see that you might switch possibly, your first and second choice? In other words, it
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the, if the attendant were able to 776
get the flaps up... 777

SPI: Right. 779

ELD: ...would you, do you foresee 781
yourself thinking that that might be a 782
better choice? 783

SPI: Ahmm, I don't think it's a 785
better choice. They, they, they are 786
pretty close. I don't think it's a 787
better choice, but I think my second 788
choice is better than, than ahhh, the 789

-IMPULSIVE -INVULNERAB
next two but yeah, I would probably 790M -$
try to ahhh, you know, ahhh, you know, 791
reset the flaps and keep getting them 792

-DEFINCONDB
up but I wouldn't - If I could call 793 -$-
the flight school and there was a 794
mechanic there and, you know, he said 795
'Oh, I'll be out there tomorrow.' You 796
know, if I had a taxi coming and a 797
hotel ready, then I would, I would 798
wait until the mechanic came. So if 799
everything was set, then the mechanic 800

-OUTSIDEDEFAC
could come change it. Now, maybe if I 801 -#
couldn't get a hotel, you know, it's a 802
little small airport, if I couldn't 803
get a hotel - I had no place to stay, 804
you know, maybe I do have enough money 805
for maybe a cab or somethin', then I 806
would probably try to reset, reset the 807
switch. That, that would be the 808 -#
difference between the two. 809

ELD: So, so your thinking here would 811
be ahhh, correct me if I'm wrong, but 812
an economic factor? 813

SPI: Yeah, probably, probably, more 815
ahhh economic, more convenient. You 816
know, I, I don't want ahhhm, you know, 817
ahhh, you would have to, you know, 818
your flight school would have to pay 819
money to send a plane out there. Pay 820
for the fuel, pay for the mechanic, 821
you know, so that would be one thing. 822

-RULES
I don't want the flight school to be 823 -#
mad at me, but I think waiting would 824 -$-
probably be the very first most best 825

-DEFINCONDB
ting thing to do. If I had money for, for 826 -#
a cab or ahhhh hotel room, I could stay 827
the night. It would be better. 828 -$#

ELD: But if you didn't have money to 830
stay the night? 831

-OUTSIDEDEFAC -IMPULSIVE -INVULNERAB
SPI: Yeah, if I didn't have money to 833 -#
stay the night and, you know, it was a 834
little airport, you know, way out in 835
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the country and, you know, I wasn't 836 |
comfortable with the place or wasn't 837 |
familiar with it, then I would 838 |
probably try to reset the flaps to 839 |
the upright position - make sure 840 |
they're down and locked, I mean up and 841 |
locked. 842 -#

ELD: And, what about if there was an economic problem. You didn't have the 844 money for a hotel or you couldn't get a cab or whatever, and ahhh, you 845 couldn't get the flaps up? 848

SPI: And I couldn't get the flaps up? 850

ELD: Right. 852

$-PLAN
SPI: Then, ahhh, then I'd probably wait until the morning and send wait 'till they send a ahhh, mechanic out 854 855 |
$-DEFINECOND there. Now if it was, if it was a nice summer night or somethin' 857 |
[laughs] 858 |
ELD: Well, suppose it was a cold winter night? 861 862

$-DEFINECOND #-$OUTSIDEAC #-$HESITANT
SPI: Cold winter night. Oh man, that wouldn't be nice. Ahhh, well then I would probably... again I, I ahhh, I told you I would ask some pilots, see what they would do and if it's cold, I had no money, I had no food, I wasn't familiar, you know, it was ahh a little airport and I couldn't get a hold of any mechanic, couldn't - now worse case problem, and I couldn't set the flaps up, I would probably, I would probably have to go, go to this thirty, [chuckles] thirty-five mile ahhh, trip over to this other airport. 864M 865 866 |

$-SAFETY
But I would definitely be pretty cautious about flying... 878 879
ELD: Tell me about your thinking about doing that. 881 882

$-PRIORITY
SPI: About doing that. Well, first would be takeoff. Would ahhh, I would try to predict how the plane would, the plane would act on takeoff. 885 886 887

Ahmm, during I would ahhh, also think about 'I can't go too fast', you know, 888M

$-HESITANT
ahmm, landing, I don't think landing would be much of a problem, I wouldn't be too worried about that and 890 891 892

$-UNCOMFORTA
turbulence. I'd be worried about turbulence, takeoff and maybe 893 894
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Coded Version of SP1SC3  9/2/01 10:12:30 AM  Page 18

decision on this scenario, at all?  1017

SP1: Ahhh, I would say yeah, a little  1019
bit.  1020

ELD: How would that ahhh, factor into  1022
that thought process of yours?  1023

#-WEATHER

SP1: Ahhh, well, ahhh, the first  1025 -#-
thing I would think about is if the  1026 |
weather is turbulence flying at  1027 |
minimum controllableairspeed with the  1028 |
turbulence. Ahhh, how rough it would  1029 |
be. Ahhh, visibility, you know, maybe  1030 |
if the visibility was bad. Ahhh, it  1031 |
would, it would, it wouldn't be a  1032 |
crucial factor, but it would be, you  1033 |
know, a moderate factor. It wouldn't  1034 |
be that, that crucial. I would be  1035 |
worried about turbulence the most.  1036 -#-

ELD: And when you look at pre-flight  1038 |
go/no-go decisions, in general. What  1039 |
are your, are your thoughts about  1040 |
pre-flight or go/no-go decisions?  1041 |
What, what do you feel is most  1042 |
important for you as a student pilot  1043 |
to keep in mind with regard to that  1044 |
go/no-go decision.  1045

#-LACKOFEXP

SP1: Ahhh, as, as a student pilot, I  1047 -#-
think if, if I find anything that's,  1048 |
anything that's out of the unordinary,  1049 |
you know maybe a screw's loose. Or  1050 |
maybe a rivet is, is joggled or, you  1051 |
know, a, a stabilizer, a stabilizer  1052 |
isn't stable [chuckles]...I would  1053 |
definitely go ask somebody with  1054 |
experience and I wouldn't, you know,  1055 |
I'm, I'm a student pilot, I don't have  1056 |
much experience with ahhh something  1057 |

$-RULES

going wrong. Maybe I've only had one  1058 -#-$
or two things happen and I always ask  1059 |
my instructor or a mechanic. So I  1060 |
would definitely always ask somebody.  1061 |
I wouldn't leave it down to myself.  1062 -$

ELD: Thanks  1064

SP1: Your welcome.  1066
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Coded Version of SP2SC1  9/2/01 10:18:31 AM  Page 13

SP2: Second choice was 'C, insist on 720
using runway 28 stating that the 721
crosswinds are unsafe for use, to use 722
runway 35.' 723

ELD: OK, why would that be number 725
two? 726

SP2: Ahmm, because if the winds were 728M
#-MACHO  7-INVULNERAB
at ten knots and --- actually, you 729
know what I take that back, that's an 730
ideal world. Number two would be 'A, 731
accept clearance to runway 35.' 732

ELD: OK, talk to me about that. 734

#-INVULNERAB #-MACHO
SP2: OK, I would, in this situation, 736
accept clearance to the runway 35 due 737

3-WHATOTHD0
ahmm, you know, it would almost be a 739
situation, I hate to say it, but 740
everybody else is doing it [laughs]. I 741
would seriously, if the tower 742
shouted the pattern was using runway 743

#-LITTLEINFO
35, then, you know, even if it's a 744
local, you know, either the, I'm 745
assuming this is somewhere quote, 746
where I'm not that familiar with but 747
the locals [pilots who frequently land 748
at airport in scenario] are ahmm, 749

$-WHATOTHD0
that's what they do, for some reason, 750
maybe a reason that makes sense. 751

#-CONFUSED
Ahhm, and it's not a direct 752M
necessary, it's not a direct tail wind so 753
it's not anything where I'm gonna 754
ahmm, you know, put myself in too much 755

$-ALTPLAN
danger. And, I would always have in 756
the back of my mind, that a go-around 757
is what I could do and then go to, 758
obviously, insisting on runway 28. 759

ELD: Talk to me a little bit more 761
about 'the reason I would do this is 762
because everyone else is doing it.' 763

#-WHATOTHD0
SP2: [laughs]. Well, there's two 765
planes in the pattern or close to the 766
pattern. Ahhhm, somebody already 767
asked to use runway 28 and they told 768
him the runway is not active. OK, so 769
that person already asked, they said, 770
'no.' Ahhhm, Piper Cherokee did 771
not, you know, did not ahmm, insist 772

#-IMPULSIVE #-MACHO #-INVULNERAB #-WHATOTHD0
ahmm you know, I would just go with 773
the flow. Go with the pattern. 774

#-ALTPLAN
Knowing in the back of my mind, now it 775
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Coded Version of SP2SC2 9/2/01 10:29:40 AM Page 1

SP2SC2 April 6, 2001

ELD: The second scenario, [two 3 separate problems: 1. Drop in RPM and 4 2. Possible electrical malfunction] 5 again, you're on a cross-country 6 flight by yourself and during the 7 flight you have a problem. 8

SP2: OK 10

ELD: So I'll let you read it over 12 [SP2 reads scenario 2]. OK so, there 13 you are, talk to me a little bit about 14 your thought process as ahhh, this 15 scenario unfolds. 16

#-PRIORITY
SP2: [coughs] All right. Well, the 18 -$ first thing I would notice, obviously, 19 is the loss of RPMs ahhh, want to 20

#-EXPERIENCE #-KNOWLEDGE
know all the fuel problems. And when 21 -$ I was reading this [referring to the 22 scenario] I immediately suspected, 23 before I saw this [inadvertently 24 SP2 turned over paper and observed(for 25 a second or two) the alternatives], 26 carburetor icing - pulling the 27

$-WHAT/THOUGHT #-RULES
carburetor heat ahhh, and I have heard 28 -$-$#$ may times from different ahhh, people, 29 different, different pilots, 30 instructors, professional pilots ahhh, 31 that things get worse before they get 32 bad [meant to say 'better'] with carb 33

$-KNOWLEDGE
icing. So that would be the first, 34 -$ dollar I don't want to say concern, but 35 first lack of concern I would have. I 36 mean I would understand that OK, if 37 things gonna get worse, the RPMs 38 will continue to drop and then, and 39 then level and then they'll get back 40

$-ANALYSIS
up to where they were. So, I would 41 -$ assume that it's just a matter of the 42 ice melting, that kind of thing. 43

$-KNOWLEDGE
Ahhm [pause] other than that - the 44 -$ ammeter ahhh, alternator, electrical 45 power, ahhh, is not a direct, a 46 direct ahhh source to the, the engine 47

$-COMPONENTS
power. So I wouldn't be too concerned 48 -$-$ with necessarily ahhh, losing the 49 engine, ahhh assuming that the carb 50 ice was gonna, you know, get out and, 51 and the RPMs would gradually ahhh, 52

$-KNOWLEDGE #-WHAT/THOUGHT #-CONCERNS
recover. So, at that particular 53 -$-$#$ moment I would be a little nervous 54 obviously in that situation, but I 55 would be knowing that OK the, the 56 electrical power has nothing to do 57 with the engine, RPMs, I've heard, 58
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Coded Version of SP2SC3 9/2/01 10:39:56 AM Page 2

ELD: All right. Well the flaps are 59
down all the way, OK. And what if 60
they just remained down? 61

SP2: OK, so they didn't fix them and 63
they weren't, you know, they weren't 64
able.. 65

ELD: Let's say, ahhh, they were still 67
down and what's your thinking about 68
that? In other words, they just won't 69
go up. 70

#$-UNCOMFORTABLE
SP2: [pause]. No, I still wouldn't 72 -$
ahhh, I still would feel very 73 |
#$-LACKOFEXP
uncomfortable flying it. And, at this 74 -$-$
point in my experience I wouldn't, 75 |
#$-WEATHER
wouldn't do it. Not with the weather, 76M -$-
the way it was. I mean it's one thing 77 |
if it was clear sky, sunny day and I 78 |
can just slow flight [flying slower 79 |
in recommended cruise speed] for 80 |
three-five miles. Ahhh, but, ahhh, 81 |
you know, with the weather. It says 82 |
the weather is deteriorating. 83 -$-
#$-DEFINSEQCOND $-ANALYSIS
Thirty-five mile flight doing 65-70 84 -$-
knots. You're taking, you know, forty 85 |
minutes to get there, whatever that 86 |
is. Ahhh, you don't know, you know, 87 |
that kind of thing. I'm not ahhh, it, 89 -$
#$-NOTOPTION
to me it's a no brainer. I wouldn't 90 -$
even think about making this flight. 91 -$-

ELD: And would that be primarily 93
because of the weather? 94

#$-WEATHER
SP2: I wouldn't say primarily. 96 -$
Certainly weather would certainly 97 |
ahhh, attribute to that -- contribute 98 |
#$-RESISTANT $-DEFINSEQCOND
to that ahhh decision. Ahhh, well I 99 -$
would say if the weather was a 100 |
beautiful day and, and that kind of 101 |
thing I would consider it. I didn't 102 -$
say I would do it, I would consider 103 |
#$-WEATHER
it. Ahhh, but yeah, with the weather, 104 -$-$
#$-OUTSIDEFOC
that's just a no-brainer. And the 105 -$
friend, the friend has nothing to -- I 106 |
would, ahhh, to do with any decision. 107 -$

ELD: You're going to let your friend 109
down? 110

SP2: Yep. 112

ELD: Tell me about that. 114
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Coded Version of SP2SC3 9/2/01 10:39:56 AM Page 4

there's not a lot of traffic, you know, it would be - I'd consider it a little more. Either way I, I still don't believe I would make this flight - when push came to shove.

ELD: OK.

#-DEFINECOND
SP2: I wouldn't feel comfortable
$-UNCOMFORTA $-TIME
taking off like that. I wouldn't feel comfortable straight, you know, flying for that thing - for that length of time. Ahmm, with you know, messed up flaps.

ELD: What would you be thinking about with regard to takeoff here? In that condition?

#-ADDITINFO
SP2: Ahmm, well, check, first of all I would check my pilot, the pilot operating handbook [POH] and make sure, first of all I can even takeoff from this particular airplane with full flaps. Some airplanes, I would imagine, you cannot do that so, that's one consideration. Ahmm, and I'm not even sure, so sure I'd be concerned, I'm sure I could get the plane up in the air. My concern would be just flying that extended, extended period of time at that slow speed. Ahhm, with that situation, with the flaps ahmm, with damaged, damaged flaps. So I would check the POH, if you know, the speed, I could get up in the air, but again, my my concern would be getting there, not necessarily landing or taking off. Certainly not landing.

ELD: Well, let's say the POH ahh, all it said with regard to flaps and takeoffs was that ten degrees of flaps was recommended for short field takeoffs and that's all it said.

#-HESITANT $-DEFINECOND
SP2: Then that's not good enough for me. Thirty, I mean you're talking about twenty more degrees. They're recommending ten degrees so, you know, if it doesn't say it, I, I would have

$-ANALYSIS
a problem doing it. And I would also look at it like this - I'm in the air and my flaps get stuck have way down where I'm going, I, I would consider
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Coded Version of SP2SC3 9/2/01 10:39:57 AM Page 6

ELD: Are there any circumstances under which you would be thinking about taking off in that airplane, with the flaps extended? 287

#-MACHO #-INVULNERAB #-IMPULSIVE
SP2: Yeah, if the POH said this plane will takeoff ahh, with full flaps at this speed. 292M -#

#-NOTOPTION
ELD: How about if the POH didn't specifically say that and it just doesn't address the issue at all? 296 -#

SP2: I wouldn't do it...wouldn't do it. 300 -#

ELD: And your reasons for that would be? SP2: Ahhh, just because of my last nine months of flying. 303 -$

#-EXPERIENCE

#-RULES
Everything that's been told me is you know, 'here's the POH, this has been tested by professionals, blah, blah, blah, but obviously, if it's not in there, then it was not tested or if it's not in there then it was tested or, and it didn't work. It just wouldn't be a good situation. 306M -# |

ELD: What about the attendant's offer. He seemed to be a helpful individual. What would your thinking be about his ahh, his offer in that scenario? 315 |

#-DEFINECOND
SP2: Where he offers to fix it, but it won't go all the way down. Or won't, he can't guarantee it will go back down? 321M -#

ELD: Correct. 322 |

#-LACKOFEXP
SP2: Ahhh, again, I don't have any experience in landing an airplane with no flaps so worse case scenario, they don't go back down. Ahhhm, I, I would have, certainly I, I couldn't ahh, 328M -#

#-LACKOFLEXP #-LACKKNOWLE #-INVULNERAB #-MACHO
you know, takeoff would be fine, obviously, straight and level, but 331M -#-$

$-CONCERNS
ahhh, when it comes to land, when I hit the flaps and nothing's happening, so I have no drag [slows airplane down] or anything like that, ahhm, or very little drag, ahhh, I would have a problem with that as well. Just because I, I have no experience in it. 333M -#-$

#-ANALYSIS
I mean if I was to go up six, seven 334 |

$-ANALYSIS

#-LACKOFEXP

#-CONCERNS
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still gonna try to get there for him 402
but that's not an issue. It's just 403
one outweighs the other tremendously. 404

ELD: What about your decision to 406
allow the attendant to fix the problem 407
and then you go on? Would that be a 408
matter of time or just be a matter of 409
convenience? 410

SP2: Now, wait a minute, when we say 412M
'the attendant' oh, he's not a mechanic. 413
[laughs]. 414

ELD: Right. 416

#-ALTPLAN
SP2: Oh, no, no, he wouldn't, no, no, 418M
take, I take everything I said back 419
then... 420

ELD: Oh, OK - tell me about that 422
then. 423

#-DEFINECOND
SP2: No [laughs]. I would, I would 425M
want to know who the guy is first of 426

$-UNCERTAIN
all. Second of all, he's not even a 427
mechanic ahhh, no, the, the, all the 428M
things I said before, then are, well, 429
the - except for the part if he can 430

#-HESITANT
get the flaps up, you know, but even 431
then I, I would have a problem with 432
some stranger who's not a mechanic. 433
Messing with wires and switches and 434
all that stuff on the airplane. 435

ELD: Is there, is there a ahhh, 437
reason why you wouldn't - a specific 438
reason why you wouldn't allow it if he 439
were able to get them up - get the 440
flaps back up? 441

#-EXPERIENCE
SP2: Yeah, there is because I know, 443
I've seen the inside of a wing 444
[laughs] it's a lot of wires and all 445

$-PRIORITY $-ANALYSIS
that stuff going on and for somebody 446M
to, that I don't even know, to come 447
along and ahhh, say they'd fix it, 448

#-SAFETY
ahhh, you know, I'm putting, basically 449

$-CONCERNS
my life in their hands. They could, 450
that thing could, you know, he could 451
cross wire something in the look, you 452
know, I do the right elevator or right 453
taileron and ahhh, the left one goes. 454
I do the left one and the right one 455
goes and right rudder and left. 456
There's a lot of stuff going on that 457
you really have to know what you're 458
doing to you know, air, aircrafts are 459
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#-PRIORITY  #-SAFETY
complicated machines so - that's the 460 -# |
primary reason, there's too much that 461 |
can go wrong for - to get back for 462 -# |
somebody to take a test. 463 -$ |

ELD: Could you - so in that scenario 465 then, you're, you're saying you're not 466 going to allow the attendant to work 467 on the airplane? 468

#-DEFINECOND
SP2: No, not if he's not a mechanic. 470M -# Not somebody whose coming along and 471 |
saying 'oh yeah, I've seen that before 472 |

#$-LACKKNOWLE  $-ANALYSIS
- we do this.' And, ahhh, you know, 473 -$-S-$
ahhmm, [pause] and the 'limit switch, ' 474 |
I'm not sure what that is, but I'm 475 |
assuming he's getting at some kind of 476 |
the technical part of the airplane. 477 -$ |
Ahhh, and he's talking about 478 |
installing it - no. 479 -$

ELD: OK. 481

#$-ANALYSIS  $-DEFINECOND  $-WHATTOHDO
SP2: I, yeah, ahhh, I figure there is 483M -$-$
a difference between that and somebody 484 |
coming along and saying 'oh, you can 485 |
pull out the, you know, you've got to 486 |
pull out the flap thing before you do 487 |
it' and now you undo it and it may 488 |

#$-NEGATIONS
work. That's one thing, but for 489 -S-$
and, and working with the, ahhh, you 491 |
know, the entrails of an airplane 492 |
that, ahhh, that's not qualified, 493 |
that's, that's, that's pretty bad. 494 -$
That's the equivalent of somebody 495M |
saying 'well, yeah, I've flown on many 496 |
jets before and ahhhm, you know, I'll 497 |
fly you back. I don't have a license, 498 |
but I've seen planes fly before.' 499 -$

ELD: So, since your not going to work 501 on the airplane, what are your 502 alternatives now? 503

#$-OPTIONS
SP2: Ahh, my alternatives are to try 505 -$
to get a mechanic from somewhere local 506 |
maybe to come out - an airplane 507 |
mechanic. Or, have a ahhh, mechanic 508 |
from the, from wherever the airplane 509 |
is from to fly up with a, you know, a 510 |
pilot, and fix it since it is 511 |
their airplane. 512 -$

ELD: OK. 514

#$-PLAN
SP2: Ahhh, other than that, the, the 516 -$
plane would have to stay there. You 517 |
know, I'd have to get a ride back to 518 |
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the bus, train and ask somebody would 519 |
pick me up. Somebody to fly up and 520 |
pick me up - whatever, it takes. 521 -#

ELD: What additional information, 523 |
that's not provided in this scenario, 524 |
would you like to have that's not 525 |
here? 526

#-ADDITINFO

SP2: Ahhh, what a limit, 'limit 528 -#

$-DEFINECOND

switch' is and where it is. Ahhh, you 529M -$ know, if this is something like this, 530 |
where, it was just stuck or something 531 -# |
it got just a little stuck, and it 532 |
works, that's one thing, but if he had 533 |
to unscrew it and kind of do that 534 |
thing. So I don't know what that 535 -$ [limit switch] is. Ahhm, [pause] I 536 |
think that's it. 537

ELD: OK. How about if the attendant 539 |
said that 'it's - the limit switch is 540 |
just stuck, as you pointed out on the 541 |
ahhh, TV and he said 'I could fix it 542 |
in just a second.' 543

#-HESITANT #-DEFINECOND #-UNCERTAIN

SP2: Well, this is a difference 545M -#
between him saying 'I can fix it' and, 546 |
well, he's got to, you know, it's just 547 |
stuck, somebody put some gum on there 548 |
or something. There's a difference 549 |
between 'I can fix it' and 'this is 550 |
what you have to do.' 551 -#

ELD: And what would you be thinking 553 |
about with regard to those two options 554 |
there? 555

#-DEFINECOND

SP2: 'I can fix it,' then I, I'm 557M -#
gonna have to get a ride back home. 558 |
But if it's 'look, you're not doing it 559 |
right, here's how you should do it,' 560 |
then that's fine, 'thank you very 561 |
much,' I'll be home in two hours. 562 -#

ELD: So, are you saying if it was 564 |
something very minor... 565

SP2: No, I'm not saying it was 567 |
very...I'm saying if it was something on 568 |

#-DEFINECOND

my part. I'm not, for example, ahhm, 569 -#
what is in that one aircraft, ahhm, 570 |
well let's just take the two, there's 571 |
two Cessnas [type of aircraft commonly 572 |
used in training student pilots] out 573 |
there and their flaps were completely 574 |
different. One of them you have to 575 |
hold down [with the flap extension 576 |
levers] the other one is a, it's kind 577 |
of like a, a column [indentations on 578 |
column which indicate flap setting] 579 |
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job and it's just safer all around. 878 |
Safe on my part it's, that's their 879 |
business on their part if they want 880 |
$-WHATSOEVER
business. And I'm sure the flight 881 -$-
\*school itself would be, you know, 882 |
happy that ahhh, you know, you took 883 |
precautions with their airplane and, 884 |
and kept it safe as opposed to maybe 885 |
damaging the wheels or even wrecking 886 |
it or crashing it... 887 -$

ELD: OK. 889

SP2: Damaging the wings. 891

ELD: All right. Is there, is there a 893
lesson here in this ahhh go/no-go 894
decision scenario that ahhh pilots,
you feel, should keep in mind? 896

$-SAFETY
SP2: [pause] Ahhh, yeah, I think the 898 -$
decision, the major lesson is that I 899 |
think safety - you have to take safety 900 |
into account first as opposed to 'I 901M |
gotta get the, gotta get there 902 |

$-DEFINITION
attitude.' Ahhh, again, it's one 903 -
thing if, you know, you're in 904 |
Pennsylvania and you're wife is being 905 |
held hostage or your child is being 906 |
held hostage and you've got to get 907 |

$-CONCERNS
there, then, OK, my flaps won't come 908 -
down. I really haven't experienced 909M |
landing the plane with no flaps but 910 |
hey, it's an emergency situation, it's 911 |
life or death. That's another thing if 912 -%
your friend has a test four hours from 913 |
now and you are trying to get back to 914 |
him or her. That's ahhhm, that's not 915 |

$-ANALYSIS
a ahhh, heavy weighted situation. So 916 -
I think ahhh, just taking into account 917 |
the safety and ahhh, I guess the 918 |
'risk-reward' is what you would call 919 |
it of any situation. If you're taking 920 -$
that risk, what's, what's what are you 921

$-DEFINITION
doing it for? Why are you doing it? 922 -
Are you doing it to go to Atlantic 923 |
City and gamble because you've got to 924 |
impresse your friends? Or are you 925 |
doing it because, you know, your dad 926 |
just had a heart attack or your, you 927 |
know, brother just got hit by a car, 928 |
or whatever. 929 -$

$-MACHO $-INVULNERAB
ELD: If ahhh, if there was a serious 931 -
situation like that. Let's say there 932
was a serious problem at home... 933 |

SP2: Uhuu. 935 |
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ELD: Would that affect your decision-making process? 937 |
    938 |
SP2: Yes, I hate to say 'yes', but yes. 940 |
    941 -# |
ELD: Tell me about that. 943

#-DEFINECOND
SP2: Ahhm, well I'm not sure for everybody, but for me - I tend to put 945 -#
    other people before me. And I do not concern, well, I won't say 'I don't 946 |
    concern myself;' but to me if, you 947 |
    know, my dad or mother or brother was 948 |
    on their death bed, ahhm, me making a 949 |
    educated risk, taking an educated 950 |
    risk, is more important than, you 951 |
    #-PRIORIT
    know, saying final words, you know, I 952 |
    hate to be that drastic, but a 953 |
    situation that, that demands my 954 |
    presence. Demands my presence not, 955 |
    you know, wants my presence or I want 956 |
    to have its presence but demands my 957 |
    presence. 958 |
ELD: So, if, if an extreme situation like that were to occur, in this 959 |
    particular scenario, what might that cause you to do? 960 |
    961 |
#-PLAN
SP2: I would take the least risky action. Probably have him put the 962 |
    963 |
$-IMPULSIVE
flaps up. Just reset the switch and 964 |
    965 |
%-DEFINECOND
go. Now again, I am, I am assuming that this is something where, you 966 |
    967 |
    know, I am two hours away from my family and something tragic has 968 |
    969 |
    happened and I got to be there in the next 2-3 hours and, you know, I would 970 |
    971 |
    take, take my options, take them into account the ahhh, least risky 972 |
    973 |
%-RULES
$-DEFINECOND
situation. And I'm not, I'm not talking about something that's 974 |
    975 |
    completely outside of the POH or anything like that where I'm trying to 976 |
    977 |
    it says in the POH in bold letters, do not take this airplane, you know, 978 |
    979 |
    do not attempt to take off with full flaps and I'm saying 'oh, I'm going anyway.' I'm talking about a 980 |
    981 |
    situation where you can land an airplane with no flaps, that's fine. 982 |
    983 |
    Ahhm, and I've done it let's say once, twice and I, maybe they weren't even 984 |
    985 |
    good landings, but I know it's within the, the ahhh, specifications of the 986 |
    987 |
%-MACHO
$-INVULNERAB
aircraft ahhh, sure, I wouldn't even think twice about it. 988 |
    989 |
    990 |
    991 |
    992 |
    993 -# |
    994 -# -%
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ELD: What about your - you mentioned a couple of times your experience level. Based on your experience level you would do certain things or not do certain things. 996

SP2: Uhuh ELD: How do you think this...your thinking about this scenario might change if your experience levels were much higher? Let's say you have landed with no flaps on previous occasions and you had a lot more experience. Would that, do you feel, ahh, alter your ahhh... 1002

$-DEFINITION $-DEFINITION
SP2: It would certainly alter it, but again it would depend on what is this guy doing to the airplane? Is he just making a - showing me something I wasn't doing properly or was he, did he just hit a, you know, bug in a reset ahh, already made one of the ahh, you know, the, the, what do you call them? What are the things on the front of the yoke? The ahh, every house has them? Can't think of the word... 1012

ELD: Circuit breaker 1025

$-IMPULSIVE $-DEFINITION
SP2: Circuit breaker. Maybe one of the circuit breakers is out [indicates a potential electrical problem]. If that was the case and I'd experienced landing with no flaps, then sure, I'd do it. But again, if he's getting into the inner workings of the aircraft and this guy has no license, no experience. Or I guess he would have experience but no ahhm, you know, just background on that particular ahhm, thing then that's, my experience has nothing to do with him messing the airplane up. 1027

ELD: OK, thank you. 1042
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how you react, how you operate an aircraft and that kind of thing. 61 | |

#-TIME
Four things I noticed was that she was in a rush. All right and that rush, ah, ah was two-fold pretty much. 64 | |

#-SKIPPROCED
One she skipped her pre-flight [inspection of aircraft] I think that they showed, she walked around the airplane [laughs at inadequate pre-flight inspection] and see if she was looking — [laughs] that was funny. She was in a rush and ah, ah she skipped her pre-flight, pre-flight check ah, I'm not even sure she checked the fuel, ah, ah, so all those things make, make, obviously that's gonna be something that could come back and haunt you. And also being in a rush, you make decisions ah, ah, 'should I go or should I stay? Well, I'm in a rush, I've got to go.'

#-OPTIONS #-TIME #-IMPATIENT
You also make decisions in the air that maybe you wouldn't make if you had ample time and fuel. Ahh, oh, she wasn't sure, she was borderline whether there was enough fuel to even get there. Those are the five things I noted.

ELD: You mentioned that ahh, the mentality and attitude make a big difference.

92

SP2: Uhuh.

94

ELD: Could you elaborate a little more on that?

97

#-EXPERIENCE
SP2: Well, I figure it's just like driving. If you are upset about something or angry about something or just letting off steam, then your decision-making process is not, in my opinion, not what it would be if you were a different, better mood. Ahh, but I think also your, for lack of a better term, motor skills are more aggressive, I guess. Last weekend I went out flying and I, I wasn't in a bad mood, but I was kind of just a little tired maybe. Not extremely tired, probably like I am right now. Ahh, man I was, I was struggling landing the airplane. I felt like I never landed an airplane before. Ahh, so I, it makes a huge difference. It makes a huge
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### Knowledge

| Difference and I, I would guess that | 119 | | |
|--------------------------------------|-----|-----|
| Research has shown that. I've heard | 120 | - | |
| People talk about it before, too. In | 121 | | |
| Fact, I think you've talked about it | 122 | | |
| Before. | 123 | - | - |

**ELD:** You also mentioned that she seems stressed out.

**SP2:** Uuhh

**ELD:** How, how do you think that may have affected her thought process here?

**SP2:** Well, her stressing out, ahh, I think was a ahhm, source of all the other things. Ahhh, her, she was stressed out, therefore she was you know, pretty much screaming at the lady that was supposed to get her the gas. That led to her, you know, ahhh, I guess maybe being in a rush is what caused her stress, that kind of thing. Ahhh, but, I think her being stressed out just led to a lot of misjudgments in terms of you know,

### DeterFactor

**SP2:** I'm not worried about the weather, I'll just go. Ahhhm, I'm not worried about the fuel, that's fine, whatever.

### DeterFactor

**SP2:** She's kind of upset about the, you know, the not being refueled properly, and that kind of thing.

**ELD:** What do you feel should have been ahhh, the most important thing she should have been considering when ahhh, attempting to make that go/no-go decision?

### Priority

**SP2:** Ahhhm, most important thing would be [pause] well, I would say, of the things I would've listed the most important thing would be the fuel.

### Weather

**SP2:** Because that's something I mean, can possibly overcome that. Ahhhm, you know, if you're flying in weather and qualified to do so, that's, that's

### Analysis

**SP2:** Fine. Fuel, is either you have, you will have it at the end or you won't or you might. And that's something that she should have considered. Ahhhm, you know, I think it's, you should have obviously ahhh, more fuel than you need. And she was saying 'well, I guess, I guess this may be enough.' And that's kind of a - she's
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things.  354  -=-$

ELD: Now, in this scenario she passed 356
up a field. Do you have any feelings 357
about why she may have done that? 358
What her thought process was as far as 359
passing up that field? 360

#-DEFINE

SP2: Obviously she was, some, I mean 362  -
obviously she knew she was low on gas. 363 |
She was obviously somewhere close to 364 |
her home airport and she decided that 365 |
based on the fuel gauges, she can make 366 |
it to where she needs to make it - she 367 |

#-TIME

hopes. And obviously that had to do 368  -=-$
with her being in a rush. And time 369 |
wasted a factor and ahh, she made a 370 |
decision based on time. Based on her 371 |
judgment or lack thereof. 372  -$

ELD: You just mentioned that time was 374
a factor. How does, how does time 375
play into these in-flight decisions 376
that she's making? 377

#-SAFETY

SP2: Ahhm, she's just passing up 379  -
decision, common sense decisions that 380 |
any normal person would make even any 381 |
normal - her in a normal situation 382 |

#-TIME

would make, safety situations. She 383  -=-$
passes those up to ahhhm, due to time. 384  -$

#-NEGATIONS

She passes up landing, she passes up 385  -
making an announcement that she's low 386 |
on fuel, she passes up ahhm, I'm not 387 |
sure in a normal situation those 388 |
gauges are that low. She's saying to 389 |
herself 'well, I don't trust these 390 |
things, let me stop somewhere and get 391 |

$-INVIOLABLE  $-IMPULSIVE

some gas.' She doesn't do that, she's 392  -$-
may be even in her own subconscious 393  |
believing the gauges because she wants 394  |
to believe the gauges. As opposed to 395  -$-
you know, understanding that they are 396  |
not, not ahhhm, accurate readings. 397  -$

ELD: Do you feel that stress affected 399
her in-flight decision processes? 400

#-STRESS

SP2: Based on the video, no. Not in 402M  -
flight. It certainly affected it 403 |
ahhhm, affected pre-flight, but I think 404 |
in the air, I think, it was more of a 405 |

$-TIME  $-EXPERIENCE

time factor. I gotta get there ahhm, 406M  -=-$
and you know, we all experience that 407 |
when we're driving ahhm, you know, I 408 |
got, you know, I have a Jeep Cherokee 409 |
and it tells you how many miles you 410 |
have left and sometimes it says two 411 |
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miles left in gas, but I gotta get 412 |
somewhere and I go.  Ahmm, it's not a 413 |
stress thing it's just - I gotta go 414 |
there, I gotta get there.  Now it's 415 -$
different in flying in an airplane 416
because I can just pull over [laughs]. 417

#-STRESS
But ahhh, I wouldn't say stress 418 -#
affect if ahhh, affected her in 419 |
flight, I would say stress affected 420M |
hers pre-flight which led to the issue 421 |
in the air.  422 -#

ELD: So, are you saying that the 424
pre-flight situation and her way of 425
handling the go/no-go decision had an 426
affect?  427

#-TIME
SP2: Sure, it domino, it dominoed 429M -#
itself right into ahhh, the in-flight. 430 |
If she had taken the time and you 431 |
know, kind of relaxed a little bit 432 |
pre-flight, then she would not have 433 |
been in the situation she was in 434 |
in-flight.  435 -#

ELD: What additional information 437
should she have been thinking about 438
in-flight?  439

SP2: Before, after I've seen this? 441

ELD: Before it got to the point where 443
her engine died.  444

SP2: OK, ahhh, [sighs - probably a 446
result of my redundant questions] 447
additional information.  Well, she saw 448
the airport in front of her.  Ahmm, in 449
hmmm, additional information.  I'm not 450
sure there was off the top, off hand, 451

#-ADDITINFO
I - she knew she was low on gas, 452 -#
she knew there were airports local. 453 |
Ahhh, [pause] I can't think of 454 |
anything additional she should have 455 |

#-REATIONS
been thinking about.  I mean, those 456 -$
are the two biggest factors that she 457 -#
should have taken care of right there, 458 |
when she had the chance.  459 -$

ELD: Towards the end there, the 461
engine conked out and she said, 'now 462
you have an executive decision to 463
make.'  464

SP2: Uuhh.  466

ELD: What do you feel would have or 468
should have been her thought process 469
at that point?  470

#-PRIORITY #-PLAN
SP2: Assuming that ahhh that real 472 -#
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right.  177

#-ADDITINFO
SP3: OK. Ahmm, I would try to find  179 -
out if ahhh, if ahhh, if, that the  180 

$-OPTIONS
cross wind component was ahhh, was  181 |
less over at Southside then, and I  182 |
was, had everything else had been  183 |

$-PLAN
checked out, the fuel, I knew how to  184 |
get there. Then, I would be heading  185 - | $-

%-ANALYSIS
over to Southside. Ahhh, if the cross  186 |
wind component was virtually identical  187 |
and I'm more familiar with Regional,  188 |
this Regional airport, then, ahhh, I  189 |
would, I would probably elect to stay  190 |

%-EXPERIENCE
here if, you know, if, if the cross  191 - | -$-
wind was the same at both places  192 - | $-
I would probably stay with the airport  193 |
I was most familiar with.  194 - | $-

ELD: Could you -- you mentioned ahhh,  196 |
familiarity. Tell me a little bit  197 |
more about how familiarity with the  198 |
airport would affect your thought  199 |
process here.  200

%-CONCERNS  $-STRESS
SP3: Ahhm, well, the fact that I'm  202 - | $-

%-PRESSTOACT
more familiar with this airport takes  203 |
somewhat of a, of an extra burden off  204 |
me. It's like every extra factor that  205 |
comes into the situation ahhhm means  206 |
like I've got much more stuff to think  207 |
about, you know, and it's already a  208 |
situation where, you know, I need to  209 |
really be on top of, of, on my toes  210 |
and on top of the situation to ahhh,  211 |

$-STRESS  $-PRESSTOACT
so I don't want any more factors in  212M - $-
the equation than I, than I have to  213 |
put in there.  214 - | $-

ELD: And, and being familiar with the  216 |
airport would do what?  217

%-STRESS  $-PRESSTOACT
SP3: Ahhm, ahhh, well, as I said  219 -
there would be one less thing to think  220 |
about. I, I would know, generally,  221 |
you know, ahhh, how things look there.  222

%-LACKKNOWL
Ahhh, you'd have a, a good idea of -  223 -

%-CONCERNS
you wouldn't know what the pattern  224 |
[t] [traffic pattern for arriving and  225 |
[departing aircraft] looks like at this  226 |
airport [referring to alternate  227 |
airport - Southside]. You wouldn't  228 |
have to be thinking about things like,  229 |
you know, trying to figure out, 'is it  230 |
suppose to be a left pattern [turns to  231 |
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the left) or right pattern [turns to the right] and, you know, what were the procedures at this airport?

#-COMFORTLEV
That's, if, if I already knew all that stuff, then, then ahh, then it, it would just add, add a little more comfort into the whole situation.

ELD: You mentioned, ahh, 'if fuel was not a problem,' ahh, you would be more inclined to go to the alternate. What if fuel was a problem?

#-PLAN
SP3: Ahhh, well, if fuel was a problem, then we're, ahh, we're just gonna have to do ahh, the best we can at ahh, Regional airport here.

*--ALTPLAN
Ahhm, one thing I can also do is ahhhm, and maybe I should have done this earlier, in the thought process, ahhm.

#-DEFINECOND
is if ahh, ahhm, if the cross wind is fairly you know, if it's above my minimums on the, on the active runway ahh, I'm sorry here but ahh, there's already somebody else that asked to use ahh, a diff, a different runway. Ahh, I could call the ahh, the traffic controller there at, at Regional Airport and say 'hey, ahh, you know, I'm ahhm, I'm - is there a possibility of another runway I could use that has a little ahh, a little better wind ahh, you know, a cross wind situation for me?' Ahhm, and see if the controller could put, ahhh, work something out.

ELD: Let's say that you were not familiar with the alternate airport. Let's say fuel was a consideration, so that you're tied to this Regional Airport.

SP3: OK.

ELD: What are your decision priorities? What are the ahh, ahh things you're gonna have to think about before you decide what to do here?

#-ADDITINFO
SP3: Ahhh, well, I need all the information. I, I've already got ahhh, ahhh, need to determine what the cross wind component of it is. Ahhm, and ahh, basically if, if the main runway in use is, is, like I said before, if there, there is an
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fifteen miles out from the airport. 60 -$

$-$PLAN
If at that point, before I lost any 61M -$
more juice out of the battery I would 62 |
call them up, say ahhh, 'hey, I've got 63 |
a rough engine and I got ahhhh, maybe 64 |
an electrical problems at the same 65 |
time.' Ahmm, ahhh, tell the tower 66 |
that ahhhh, ahhhh, 'if the batteries, 67 |
the battery may go down and I may lose 68 |
radio contact with them at some 69 |
point.' Ahmm, at least they know I'm 70 |
there and I've got these problems, so, 71 |

ahhh, hopefully that, there was enough 72 |
juice for the battery for me to make 73 |
that call and ahhhh, at least get that 74 |
contact established with them. Ahhh, 75 -$

#$-ASKASSIST
I imagine at that point they would 76 -$

ahhh, give me instructions. They'd 77 |
say ahhhh, 'OK, we'll watch for you on, 78 |
on radar ahhmm, ahhmm, you know, they 79 |
might expect me to lose the radios so 80 |
they're going to be on the alert for 81 |
an airplane coming in - but they 82 |

already know about me, they, they're 83 |
go to be alert that an airplane's 84 |
coming in, ahhhh, that I may have to 85 -$
use ahhmm, light signals [signals sent 86 |
from the control tower to pilots] at 87 |

that point ahhhh, you know, by the time 88 |

#$-PLAN
I get there. Ahmm, then we're gonna 89 -$
head straight for that ahhhh, in the 90 |

hope ahhhh, hope that the carb ice 91 |
problem clears up on the way ahhhh, 92 -$

#$-ALTPLAN
ahmm. At this point I'm gonna be 93 -$
looking for fields ahhhh, for possible 94 |
off airport ahhhh landing. Ahhmm, 95 |
that's, that's what I'd first, ahh, 96 |
first do. 97 -$

ELD: What, what, can you talk to me a 99 |
little bit about your thinking 100 |
priorities here? What would be your 101 |
first priority as what you really need 102 |
to be thinking about here? 103 |

#$-PRIORITY $-RULES
SP3: Ahhh, ahhhh, first priority is 105 -$
always maintain and control of the 106 |
plane to ahhhh, you don't want to 107 |-$

#$-CALMDOWN
ahhhhh, I mean, let's say the engine 108 -$
does fail, I mean ahhhh, you ahhhh, 109 |

#$-MACHO
keep a cool head. People make off 110 -$
airport landings all the time. I 111 |
mean, ahhhh, you know, people fly 112 |
gliders, they don't have a problem 113 |
with this kind of thing [laughs]. 114 -$

Ahhhh, so actually ahhhh, you know, 115 |
well, OK we've got some problems. I 116 |

#$-ANALYSIS $-PLAN
ahhh, as soon as ahhhhh, I probably 117 -$

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would take a look out the window, 118  |
right at the beginning and say, 'OK, 119  |
is there a field nearby?' you know, 120  |
ahhhh, hopefully there's something 121  |
around [to land on] then I'd get on 122  -#  |
the radio with the tower, so.. But I, 123  -$  
you know, important not to, not to get 124  |
too excited, you know, about being 125  .

#-CALMDOWN
into them. This is bad, but you don't 126  -#  
have to start freaking out. Ahhh, so... 127  -#  

ELD: So the most important thing that 129  
you would be thinking about would be... 130  

#-PRIORITY
SP3: Ahhh, you have to keep a clear, 132  -#  
clear, ahhh, chain, chain of thought 133  |
going ahhh, about what ahhh, what's 134  |
the logical things to do here and ahhh 135  |
maintain you, you want to maintain 136  |
control of the airplane and, and ahhh, 137  |

#-CALMDOWN
and not get too overly excited about 138  -$  

%-OPTIONS
this thing. You know, then you start 139  -#-$$-#  
going through your ahhh, through your 140  |

#-PLAN
alternatives. Also, if, if the thing 141  -#  -$  
was ahhhh, if the plane was ahhhh, 142  |
producing enough power, I would try to 143  |
gain a little altitude if, if 144  |
possible. If it was running well 145  |

ELD: Why? 148  |

#-PLAN  #-RULES
SP3: Because if it [the engine] did 150  -#  
quit, I want to make sure I've got 151  |

ahhh, you know, enough altitude to 152  |
made the airport so if, if it's 153  |
running well enough to gain any 154  |
altitude - go ahead and, and do it. 155  -#  

ELD: Well, you mentioned that your 157  
first priority was to keep a cool 158  |
head. 159  

SP3: Yeah. 161  

ELD: And then, presuming you did 163  
that, what would your next thought 164  
process center on? After that. 165  

#-PLAN
SP3: Ahhh, I would ahhh, keep a cool 167  -#  
head, I'd look out the window, say, 168  |
'is there a nice field around here?' 169  |
I would ahhhh, I would start trying to 170  |
gain altitude if possible and at that 171  |
point ahhh, you know, doing those 172  |
couple things, then I'd have to call 173  |
the control tower and say 'Hey, ahhh, 174  |
I got a problem here.' 175  -#  

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there and, and, and get the flaps to 59
come back up but we don't know what 60
they're ahh, gonna do at that point, 61 -#

#-NOTION
that's not ahh really acceptable 62 -#

#-CONCERNS
cause ahh, you know, I might then to 63 -%
get back down or what if they ahh, 64
what if they extend during flight and 65
ahhh, refuse to, refuse to go back up 66
over something like that? So, really 67 -#
you can't trust the flaps ahh, at 68
this point so, ahhm, so that's reason 69

#-WEATHER
to ground it right there, ahh, and 70 -#$
then it says 'the weather is also 71
getting worse.'

ELD:  The, what about the attendant 74
who offers to help you out? What are 75
your thought processes about that 76
offer?

77

#-CONCERNS
SP3:  Aahhh, ahh, like I said, ahh, 79 -
he, he may get them to go back up but, 80
like I say, we can't ahh, we can't 81
guarantee what they're [the flaps] 82

$-DEFINITION $-PLAN
gonna do after that point. Aahhh, so 83 -#$-
that's why ahh, we'd call up this 84
other airport where there is a 85
mechanic who ahh, has a switch and, 86
and ahh - well actually it [the 87
scenario] says there's a mechanic at 88
another airport, but this guy here 89
the attendant] knows where he could 90
get a switch and put it in for you 91
except this guy here is not a 92 -$
mechanic. So, ahhm, you'd have to get 93
the switch and the mechanic [laughs] 94
for your airplane. And have ahh, and 95 -

#-KNOWLEDGE
have them put it in. Ummmm, ummm, one 96 -
thing that I've, I think I read 97
somewhere is ahh, ahh, you know 98
there could be some thinking from some 99
people that you could get away with 100
this, I mean the weather could be 101
marginal enough to get back and, you 102
know, the flaps probably will stay up 103 -$

#-NOTION
on the way back, but really it's ahh, 104 -
either one of those is really an 105

$-KNOWLEDGE $-CONCERNS $-ANALYSIS
acceptable situation and I don't know 106 -$-$-
if I'm misquoting but I ahh, thought 107M
I read somewhere that it really takes 108
three factors to make an accident. 109
So, ahhm, ahh, factor one, number one 110
is unreliable flaps. Factor number 111
two is the weather is getting worse 112
and, you know, if just one more thing 113
me, it's - 114 -$
you're now got a situation that's, you 115
know, ahhhh, not good at all [laughs]. 116 -$
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amount of time really, to fix it.  235  -$ |
There's no reason not to have him fly  236  |
in.  237  -% |

ELD: Well, suppose the mechanic ahhh,  239 |
couldn't fly in, for whatever the  240 |
reasons, and it was a long holiday  241 |
weekend and there was nobody back at  242 |
the flight school. Would that effect  243 |
your thinking here?  244 |

$-EXPERIENCE
SP3: Ahhh, no, I ahhh, I'd still,  246M  -$
I'd still stick with it. And actually  247 |
ahhh, ahhh, I don't, I don't know if  248 |
you remember hearing around here but  249 |
ahhh, actually I, I did cancel a  250 |
flight here with an airplane because  251 |
of a flap problem. Ahhh, my  252 |
instructor, I noticed on walk around  253 |
(pre-flight inspection of the  254 |
aircraft) that ahhh that one of the  255 |
flaps ahhh, would move three or four  256 |
inches in and out, and the other one  257 |
wouldn't and ahhh, we had one of the  258 |
mechanics ahhh come out and look at it  259 |
and then they grounded the airplane.  260  -$

#-RULES  #-KNOWLEDGE
So, I essentially have done this  261  -#|
problem before. And the airplane  262  |
doesn't fly, so, ahhh, because you  263  |
don't know what's gonna happen ahhh,  264  |
you don't know if the flaps are  265  |

$-SAFETY
gonna work right once you get up there  266  -#-$
so it's ahhh, depending on, you know,  267  |
the, there could be some bad times for  268  |
the flaps to not do what they're  269  |

#-ALTPLAN
suppose to be doing so it's - you're  270  -#-$
just gonna have to ahhh, take a train  271  |
home or something and leave that  272  |
airplane there.  273  -#|

ELD: Could you tell me more about  275 |
that ahhh situation you had with the  276 |
flaps not working and the mechanic  277 |
grounding the airplane. And how that  278 |
may have affected you.  279 |

#-COMFORTLEV
SP3: Aham, ahhhhoooh, I ahhh - we're,  281  -#|
we're confident we made the right  282  |
decision. Aham, the ahhh my  283  -#|

$-EXPERIENCE
instructor ahhh, instructor's here -  284  -#
instructor's point out there's  285  |
always, whenever I point out there's  286  |
something mechanical with the  286  |
airplane, they never hesitate to look  287  |
at it ahhh, ahhh, have the mechanics -  288  |

#-KNOWLEDGE  #-RULES
one of them come over and you know, it  289  -# -$
specifically states that ahhh you  290  |
know, somewhere in the, I don't know  291  |
in, in the, the maintenance for these  292  |
airplanes that the flaps are not  293  |
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suppose to ahhh, move independent of 294

$=DEFINITION$

each other, they're supposed to both be 295 -$
able to do the same exact things - the 296
same thing at the same time and they 297 -$
weren't so - it was pretty clear to 298
the mechanic that ahhhh, that the 299$
airplane should have been grounded. 300 -$

ELD: When you read this scenario, did 302
that ahhhh, experience you had - did 303
that come to mind immediately or did 304
--?
305

$=EXPERIENCE$ $=PRIORITY$

SP3: Sure, well, you know, anything 307M -$
that's ahhhh, ahhhhm, yeah, it didn't, 308
wouldn't matter really if there was a 309

$=ANALYSIS$

problem with the flaps. It could be a 310 -$
problem with something else and it 311
would still be grounded. Ahhhh, I mean 312 -$
that's in general, there's - even things that 313
you'd think were inconsequential that 314
aren't working, it's could be a, a 315
problem later on. Aahhh, this is cut 316 -$

$=EXPERIENCE$

off the, this may be off, off tangent 317M -$
a little bit but just recently my car, 318M
my wife's car, the horn stopped 319
working well, you, you can drive the 320
 car just fine without the horn. But 321
ahhh, you know, one day you're in the 322
 parking lot and a big truck starts 323
 backing up towards you. It would be 324
 real nice to have the horn right about 325
 then. And it's [laughs] it's ahhhh, 326
 it's the same thing with the airplane. 327 -$

$=RULES$

Even if you think it's something that 328 -$
you don't, that you can get away 329
without, it's, it's really ahhhh, 330
everything needs to be working 331
correctly ahhhh, no matter what it is. 332 -$

ELD: If you ahhhh, turn that [the 334
written scenario] over, ahhhh, you'll 335
see, once again, four alternatives. 336
And as usual I'd like you to rank 337
order them with one being the one you 338
would choose first and four being the 339
one you would choose last. 340

SP3: OK [SP3 reads alternatives] 342

ELD: All right, well, what was your 344
first choice and why did you choose 345
that as your first choice? 346

$=ALT$

SP3: Ahhh, first choice would be 348 -$
'wait until the flight school can fly 349
out an A&P mechanic and change the 350
switch for you.' So, that would be 351
the first one. 352 -$
Appendix I  
Student Pilot Coded Transcripts

Coded Version of SP3SC3  9/2/01 11:21:40 AM  Page 10

this point to behave properly. So, 534
ahhh, that's the main reason I'm not 535
flying it is ahh, well, well there's 536
really, I guess, a couple reasons. 537
The main one is I don't trust the 538
switch at this point so, you know, who 539
knows what's, what it's gonna do once 540

#-WEATHER
you're up there. Also the weather is 541 -#
getting bad and that's, that's another 542 -#
factor, that's two factors against you 543
on this, on this flight. Ahmm, and the 544

$-RULES
third one ahhmm, I'm sure it says 545 -$
somewhere in the FARs [Federal 546
Aviation Regulations] that ahh, 547
you're not suppose to be flying 548
airplanes with ahh, ahh, you know, 549
having this type of problem, so. So 550 $%
it's probably, at some point, 551
illegal to fly an airplane that's got 552
a problem with the flight control 553
surfaces. 554 -$ -*

ELD: OK. Thanks. 556
Coded Version of SF4SC1  9/2/01 11:24:13 AM  Page 8

landing on 35. 420

SP4: Ahmm, say again, if I, I would 422
try to get 28, but if I, if the 423
controller says I have to go to 35 - I 424
would go to 35. 425

ELD: Is that what you meant? 427

#-PLAN  #-OPTIONS
SP4: Ahhh, yeah, the worse, the worse 429 -#
thing you'll do is to do a 'go around' 430 -#
[an aborted landing] and that's ahhm, 431 -#
you know, and do it that way. Ahhh, 432 -#
you know, you can, as you're coming 433 -#
down, you can kind of pull out and 434 -#
just go around and ahhm, then ahhm, 435 -#
and, I need to see about this other 436
airport but, ahhm, then maybe you need 437
to go to that airport - there's no reason 438
to go to the other one [laughs - the 439

#-CONCERNS
original airport]. Ahhh, but I mean, 440 -#
you know, like I say, it's just coming 441 -#
down and you get to the point where you 442 -#
just don't feel, you know, feel right 443 -#

#-ALTPLAN
- you can always do a [unintelligible] 444 -#
and do a go-around. You know, back, 445 -#
and go back into the pattern. Ahhh, 446 -#
and nothing wrong with that one. 447

ELD: Lets say that happened. Lets 449
say you, you came down and ahhh you 450
found that the winds were a bit 451
stronger than you felt comfortable 452
with and you decided to do a 453
go-around. 454

SP4: Uuhh. 456

ELD: What then would you be thinking 458
about? 459

$-ANALYSIS
SP4: What [unintelligible]. What did 461 -$
I do in my, in my, my setup into my, 462 -$
in my final that allowed me to 463 -$
compensate for and what basically 464 -$
could I replay what happen, what just 465 -$
happened and how do I compensate for 466 -$
that? Ahhh, that's pretty much what I 467 -$
would be thinking is like how, how do 468 -$
I adjust for what, what just happened 469 -$
because, you know, to make me go 470 -$
around. You know, and what do I need, 471 -$
what do I need to do this time so I 472 -$
can safely touch down? 473 -$

ELD: Lets say you did that, you went 475
through that process and you came in 476
again and ahh, the same thing 477
happened. 478

$-PLAN
SP4: Ahmm, guess it could happen, I 480 -#
Appendix I

Student Pilot Coded Transcripts

Coded Version of SP48C1 9/2/01 11:24:21 AM Page 15

certain that you know, that you're 841
   taking to the tower and hopefully 842
#-CONCERNS §-UNCERTAIN
   trying to get them to help you to 843 -§-
     [runway] 28. That would be, that would 844
       be ideal. Ahhh, [pause] I guess the 845
       uncertainty would be [laughs] how to 846
       get them to do that? How do you, how 847 -§-
       do you get them to, how do you 848
$-LACKOFEXP
   communicate that to, to the tower? I 849 -§-
   think that's where, in my experience 850
   I'm still unfamiliar with, you know 851
   as, you know as a new pilot that 852
   would be, me, I think, cause you're 853
#-CONCERNS §-RULES
   always - I guess you're worried about 854 -§ -§-
   first been told to fly - fly, navigate 855 -§ -§-
   common piece of advice [common piece 856 -§ -§-
     given to student pilots by their 857 -§ -§-
     instructors]. So I'm at, you know, 858 -§ -§-
#-PRIORITY
   so that's, you know, in doing that 859 -§-
   ahhh, the first thing is to fly the 860 -§-
   plane and then, ahhhh, you know, if 861 -§-
   you, at that same time you didn't want 862
   to go to - you know, didn't get on - 863
#-PLAN
   you needed to make a, choose a better 864 -§-
   runway, you know, for the conditions 865 -§-
   that you're being faced with and ahhhh, 866
   would hope to be able to do that. 867 -§-
   Ahhh, but how do you communicate that 868 -§-
$-DEFINEMAND
   to the tower? You know, they won't 869 -§-
   let, and they say 'it's active, and 870 -§-
   that 35 is still active' and they 871 -§-
   won't open it to anyone. Or if it 872 -§-
   might be open, if not the case, then, 873
   you know, that's maybe that's the 874
   pull around and not seeing it - ahhhh. 875
   [long pause]. That is pretty much my 876
   that, I mean I. I feel certain in, 877
   dealing, you know, in the, in the 878
#-CONVINCIMG §-UNCERTAIN
   flying part of it. Ahhh, but just how 879 -§-
   do you, how do you get them to open 880 -§-
   that runway, you know, to make that, 881 -§-
   you know, to see that that's the 882 -§-
   better, best choice right now? 883 -§-
   That's, that's the less difficult one 884
   for most pilots. 885

ELD: OK. At this time what I'd like 887
   you to do. Ahhh, kind of, if you'll 888
   just flip it [the paper with the 889
   scenario written on it] over on the 890
   back you'll see there are four 891
   alternatives on the back and what I'd 892
   like you to do is to look them over 893
   and rank them order with one being the 894
   alternative you would choose first and 895
   four being the one you would choose 896
   last. I'll give you a couple of 897
   minutes to do that. 898
Appendix I

Student Pilot Coded Transcripts

Coded Version of SP4SC2 9/2/01 11:29:43 AM Page 3

know, and you're looking at – maybe 116 |
there's some issues that are you know, 117 |
some you know, you might – because 118 |
they're expecting you to communicate 119 |

#-RULES #-CONCERNS
and you're not communicating. And 120 –#$
then you might be violating, violation 121 |
of their airspace so at the time you 122 |
lost your radios and I, I don't know 123 |
how that will affect you. I mean I 124 |
don't know how that could come back on 125 |
you, ahmm. 126 –#

ELD: When you say 'how it would come 128 |
back on you,' do you mean in a legal 129 |
sense? 130

#-RULES
SP4: Yeah, like [unintelligible]. If 132 –#
you're, yeah, definitely legal 133 |
because, you know, if they say that 134 |
you have to communicate within so many 135 |
miles to get clearance then ahmm, if 136 |
you're unable to do that, then you 137 |
might be violating their, their 138 |
airspace and ahmm [SP4 seems to be 139 –#
unaware of 'lost communication'
procedures for landing at an airport

#-ALTPLAN
with an operating control tower so 142 –#
you might ahmm, your best option might 143 |
be to go back to where you were if it 144 |
wasn't controlled [SP4 seems 145 –#
completely unconcerned about his 146 |
engine and appears to be concentrating 147 |
solely on the alternator problem]. 148

ELD: So your, your first thing you're 150 |
going to be thinking about then would 151 |
be what? 152

SP4: Ahmm, well I'd be, in a 154

#-PRIORITY #-OUTSIDEFAC
[unintelligible] how to, I guess, you 155M –#
know, am I gonna lose my radios? That 156 |
would be the first thing, you know 157 |
with the strain. You 158 |
know, what, what it's gonna affect, 159 |
how is this gonna affect the operation 160 |
of the other, you know the operation 161 |
of, of that airplane in general. You 162 –#
know, what's gonna be affected by it? 163
Ahmm, based off of that, if you know, 164 |
the radios go and then, ahmm 165 |
whatever's you know, being fueled by 166 |
the battery, then, then I'd have to, 167

#-RULES
you know, my next thing is OK, you 168 –#
know, this is no, no radios, am I 169 |
you're allowed to enter this 170 |
airspace and you know, what, well, you 171 –#

#-ALTPLAN
know, seeing that, that where I took 172 –#
off was uncontrolled and I was able, 173 |
you know, you could enter without 174 |
having radios, then you might be best 175 |
just to go back. You know, because 176 $#
you're, if you're half way, you know, 177
nothing says you can't go back [how 178
about the engine that is losing 179

#-CONCERNS
power!!!] Ahmm, cause there is gonna, 180 $#
there's gonna be a time when you, you 181
know, there's gonna be a time when 182
it's gonna be 'surface, surface to 183
whatever' [referring to the altitudes 184
at which radio communication is 185
required] and then you're gonna have 186
to, that you're gonna need a, it's 187
gonna be controlled and that's - even 188
in an areas where you're flying 189
lower, you know, you're at 4,500' so 190
most of that you're gonna be in the, 191
in the airspace where you're gonna 192
have to be communicating with somebody 193 $#
[not necessarily true]. 194

ELD: So, you mentioned that your 196
first priority would be the radios and 197
then the second you think would be 198
thinking about ahhh, would be the 199
airspace that you're in or might be 200
entering. Ahhh, what would be the 201
third priority here? [will SP4 ever 202
mention the fact that his engine is 203
losing power?] 204

#-PRIORITY $-CONCERNS
SP4: Ahmm, traffic, I mean it says 206 $#$-
how high traffic, I mean ahhm, heavy, 207 
heavy air traffic, I mean. All of a 208 
sudden moderate to heavy, I mean air 209 
traffic. You know, what - I guess 210 $#
that would be a, that would be a, you 211 
know concern too because I mean, that 212 
would be a concern because you'd be 213 
going in there with no radios and you 214 
know, how would they know where you're 215 
at? And you know, how do you know 216 
where they're at? And that's or what, 217 
or what, what runway is being, being 218 
landed - you know, what, which runways 219 
are you landing on. Ahmm, again, 220 $#
maybe you might have a backup radio, I 221
don't know [referring to a portable 222
radio that operates on batteries]. I 223 $#
maybe you might have a handheld 224 
and that you'd be able to communicate 225 
that way - ahhm, if that's the case I 226 
mean, then, then you'd be able to do 227 
that. Ahmm, but in this scenario you 228 $#
don't have that so ahhm, well it 229

$-ALTPLAN
depends on which one, I mean, I would, 230 $#
I would think you would just go back 231 
to where you were if you could. If 232 
that's, if that's an option. And right 233 
own it seems like it is cause you're 234 
only half way and so it would be equal 235 
distance either way and ahhm, maybe 236 
where you came from it's not as heavy, 237
Appendix I
Student Pilot Coded Transcripts

Coded Version of SP4SC3  9/2/01 11:33:58 AM  Page 1

SP4SC3  April 22, 2001  1

ELD: Scenario number three deals with  3
a cross-country flight that you're  4
taking. You arrive at the airport  5
that you're intending to land at and  6
ahhh, before taking off you conduct  7
your pre-flight [inspection], but you  8
find that there's a problem. Now I'll  9
let you read it over, and then we'll  10
discuss it.  11

SP4: All right. [SP4 reads scenario  13
three]  14

ELD: All right, well, could you talk  16
a little bit about your thought  17
process about this particular  18
situation?  19

#-LACK OF EXP
SP4: Not being a private pilot with a  21 -#
thousand hours - ahh, the student's  22 -
out of luck. Ahhhm, at first, you  23 -#
know how, well, cause you can't make  24

#-KNOWLEDGE
it. Your, your plane's, you know,  25 -#
definitely beyond limits - of thirty  26 -
degrees [referring to the flaps]  27 -#

#-EXPERIENCE
you know it's, ahh, it's, you know, I  28 -#
think, ahh, just about every airplane  29 -
I've flown is like ten degrees is  30 -
their limit on, on flap extension [for  31 -

$-PLAN
takeoff] so ahhm, I mean, hopefully a  32 -#$
mechanic can drive to the airport  33 -

#-CONCERNS
cause I'm not flying to him. And  34 -#$
that's ahhm, I mean it says you can,  35 -
you know, you that you can reach up  36 -
and free it, but I'm not sure if you  37 -
can, it, that it will work when  38 -#
airborne. Ahhh, I guess the question  39 -
would be, all right, is it, can it be  40
ahhh, can it be right? Aahhm or  41
obviously that would be my thoughts at  42
work. You know that would be the idea  43

#-LACK KNOW

to get them [the flaps] up. Aahhm, and  44 -#
people, people do make, you know, non-  45 -
non-flap landings, but that's more of  46 -

$-PRIORITY
*-ANALYSIS
an advanced technique. So I, you  47 -#$ -*
know, I, I'd say fix the flaps first  48 -
then I'm goin'. I mean, just because  49 -$
there's a flight test doesn't mean -  50 -
oh, it's in four hours - ahhm, you  51 -
know, they might be able to fix it in  52 -
four hours. You know, if they're, if  53 -
that guy can drive there quick enough,  54 -
because I'm not flying to him. Aahhm,  55 -*
and I like driving, but I mean I,  56 -

#-KNOWLEDGE

nobody said that - you know, I -- I  57 -$
know I just read something where it  58 -
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Student Pilot Coded Transcripts

Coded Version of SP4SC3  9/2/01 11:33:58 AM  Page 2

says that you're able to fix, make, 59 | make corrections on your airplane, but 60 | you also have to have it approved by 61 | a certified A&P mechanic. Ahmm, so, 62 -# you know, you make that correction. 63 

#-RULES
You know, you also have to have an 64 -# approval before you can fly it so 65 -# that's how the [unintelligible] ahmm. 66

#-PLAN
But I'd try to have, I'd try to get 67 -# a, to get the guy to take a taxi over. 68 | Give him directions to the airport 69 | and hopefully he can get there in time 70 | to fix it, fix the flaps. 71 -#

ELD: What about the attendant's offer 73 | to ahhh, try to help out. 74

#-DEFINE/COND
SP4: Ahmm, that's great, ahmm, but 76 -#
$-COMFORTLEV
he's not a mechanic. Ahmm, ahmm, I, I 77 -#$-$ would feel more comfortable with a 78 | mechanic. You know, cause, you know, 79 -$ cause, you know, just because they've 80 | seen it doesn't mean, you know, I mean 81 | it may, it might just well be that 82 | [what the attendant is suggesting]. 83

#-PRIORITY
But, you know, it might not be. So 84 -# you want to make sure, make sure it's 85 | done properly before you take it up 86 |

$-OUTSIDE/FA C*-ANALYSIS
and that's ummm, you know, how old is 87 -#$-$ the attendant? How many times has he, 88 -#$-$ | has he seen that stuff? That's the 89 | other question you have to think too 90 | and ahhh, I mean, thirty-five miles is 91 | not that far. I mean they can, that's 92 | about a thirty-minute drive. You're 93 | goin' sixty so they're gonna, I mean 94 | it's a, you get there in a half hour 95 | and fix it, maybe you know, take a 96 | half hour to fix it and then you still 97 | have time to get back to your airport 98 | before that four hour, you know, for 99 | that flight test in four hours. But I 100 -* would say 'no go' on that. 101

ELD: Well, let's say you tried to get 103 | in touch with the mechanic thirty-five 104 | miles away and for whatever the 105 | reasons he could not come down to the 106 | airport where you are. Would that 107 | make it - would you be thinking about, 108 | perhaps taking the attendant up on his 109 | offer at that point? 110

#-HESITANT
SP4: Ahmm, no, not necessarily, no, I 112 -# mean I, I think I would still, still 113 | feel the same way about it. You know, 114 -# I [pause] well, I mean you're at, I 115 | mean, I mean you're able to, ahhh, 116 | you're able to make corrections, you 117
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Student Pilot Coded Transcripts

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SP4: I think you did ask me. I think you did ask me about this before. You asked me what information I thought about cause, I said shhh, 'is there any other attendant's around the area?' so. [SP4 is correct - ELD brought up this point previously] 477

ELD: OK, well at this time, now, I'd like you to review the alternatives and rank them one to four with one being the one you would choose first and four being the one you would choose last. [SP4 reads and ranks the alternatives for scenario three]. OK, what was your first choice there? 487

#-ALTS#1
SP4: Ahhh, 'wait until, wait until the flight school can fly an A&P, an A&P mechanic in and change the switch.' 490

ELD: OK, and why did you choose that first? 495

#-PRIORITY
SP4: Because the mechanic, because you have a mechanic doing, doing the work and he's from your school, he's from your area. Umm, it's their airplane, their familiar with it and also my comfort level is much better with that. 500

ELD: And your second choice would be? 506

SP4: Ahmm, I put 'have attendant reset the switch, get the flaps up and fly home.' 509

ELD: OK and why did you choose that second? 512

SP4: Ahmm, my other choices - that #-UNCOMFORTABLE seemed next best. Ahmm, I mean you still, you still have the chance of it not, not working when you get them up. Ahmm, I still don't feel too comfortable having an attendant doing it, but it's still, you know, the flaps are up and it is flyable with them up. 515

ELD: Is that, is your second choice a ahh, viable alternative for you? 520

SP4: ahh, viable alternative for you? 526

ELD: Is it something that you would seriously consider? 527

SP4: Is it something that you would seriously consider? 528
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Student Pilot Coded Transcripts

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SP4: [pause] Ahmm, yeah, I mean, I 530 -$
     guess if it came down to it and I had 531 |
     the flaps were up and you can always 532 |
     make a no-flap landing. So I mean 533 |
     that, I mean, that is possible. So I 534 -$
     mean that, ahmm, they're up [the 535
     flaps] and, you know, I guess you can 536
     -if you make that, make that, you 537
#-EXPERIENCE
     know, make that flight. Ahmm, you 538M -#
     know, I've made, made non-flap 539 |
     landings before so I mean it is 540 |
     possible so it's ahmm, yeah, if it's 541 -$
     up - I'll make the flight and get home 542
     and get it fixed, ahmm. 543
ELD: Just to make sure I understand 545M
     what you just said. Are you saying 546
     that if the flight school's A&P 547
     mechanic could not come up and change 548
     the switch - 549
     SP4: Uuhh. 551
ELD: If that wasn't a viable 553
     alternative for whatever the reasons, 554
     then you would consider allowing the 555
     attendant to reset the switch and fly 556
     home. 557

#-IMPULSIVE  #-INVULNERAB  #-MACHO
SP4: Yeah, I mean, if yeah, whatever, 559 -#

SP4: Analysis  $-LACKKNOWL $-LITTLEINFO
     because if, you know, the flaps are 560 -$
     up. You don't have this, you don't 561 -$
     have all that structural on you any 562 |
     more [referring to the excessive drag 563 |
     caused by 30 degrees of flaps] and it 564 |
     is flyable. Ahmm, yeah, you get home 565 -$
     and get it fixed. 566
ELD: What about your third choice? 568
SP4: Have the mechanic change the 570
     switch and check it out and fly home 571
     and then have the flight school's 572
     flight school mechanic inspect the 573
     work. ELD: And why was that third? 574

SP4: Ahmm, because you have a new 576 -#
     switch. Ahmm, it's, it's workable you 577 |
     know, it's ahh, I mean you're flaps 578 |
     are working. Ahmm, so as for as 579 |
     liability at least you always have 580 |
     them up. So, I mean, even with a new 581 |
     switch, you have them up. They, 582 |
     they're done with, it doesn't work, it 583 |
     doesn't come down, you can still make 584 |
     your landing. Ahmm, maybe it won't 585 -#
     get inspected by you, by your flight 586
     school but that definitely is my third 587
     choice. 588
ELD: Is your, that third choice 590
     something that's viable for you? Is 591
Appendix I
Student Pilot Coded Transcripts

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that something you would seriously consider doing?  592

!-INVULNERAB !-IMPULSIVE !-MACHO
SP4: If I had to.  595

ELD: What would, what factors would go into making that a 'must' choice - a viable choice?  599

#$-ANALYSIS
SP4: That it doesn't -- if that  601

$-PLAN $-LACKKNOWLE $-LACKOFEXP $-IMPULSIVE
switch wouldn't become un-stuck. I'd be setting it and you put a new switch in it and then the, and the flaps retract. Then, then you're in the same, same the same scenario as, as the 'resetting the switch and getting the flaps up.' Then, then the plane's flyable. Ahmm, you just might not have flaps coming down. So, you might, you might have to make a non-flap landing.  608

ELD: Just to make sure I understand: Before you saw the alternatives you seemed to indicate that you would not allow the attendant to do much of anything. But it seems like now you're saying well, in certain situations, I might let him reset the switch or change the switch. Is there a reason for the change in thinking there?  614

SP4: Because these are my alternatives those are given. I mean, so --  626

ELD: But, are you saying then that you wouldn't actually do those alternatives?  630

$-HESITANT
SP4: I don't think I would feel comfortable with the attendant doing it - me personally. I, I, I mean I'd wait, you know, it's not, I mean. They can always reschedule a flight test. And, I'd probably rather have a mechanic do it and make sure it's done  634

$-PRIORITY
right. Even though it might, might be tedious and simple ahmm, make sure it's done right.  641

ELD: What about your last alternative?  645

#$-ALT#$4
SP4: Ahhh, leave the flaps up, I'm mean sorry, leave the flaps down, fly  648
Appendix J

Informed Consent

Doctoral Dissertation Research
Edward Louis Deitch
Virginia Polytechnic Institute and State University

Dissertation Title: Learning to Land: A Qualitative Examination of Pre-Flight and In-Flight Decision-Making Processes in Expert and Novice Aviators

I. Purpose of Project

The purpose of this dissertation is to assess the decision-making processes of expert and novice pilots. The assessment will be based on data provided by student pilots who are currently enrolled in a Private Pilot Ground School. The Private Pilot Ground School will be taught by the researcher.

Data will be acquired by the researcher who will conduct four interviews with each of four student pilots. The interviews will center on student pilots’ thought processes and reactions to four scenarios that require them to make decisions. In addition, the researcher will interview four “expert” pilots (professional pilots who have acquired a minimum of 3,000 hours of flight time). Expert pilots will be interviewed about their reaction and thought processes to the same four scenarios.

II. Confidentiality Statement

A. The subjects’ interviews will be tape-recorded and all of the information will remain confidential and anonymous. All identifying information (i.e., names of the interviewees, locations of work, etc.) will be excised from the document.

B. The researcher and other researchers are the only individuals who will listen to the tapes. The researcher will either transcribe the tapes himself or have the tapes transcribed by a professional. Once transcribed, the original tapes will be kept locked in a secure location in the researcher’s residence. The researcher is the only person who will have access to the tapes.

C. The tapes will be kept beyond the completion of the dissertation for purposes of verification and in the event there is a need to continue or expand the research. Once that has been accomplished, the tapes will be erased.

D. The subjects will be given the final version of the analysis that pertains to their interviews to verify accuracy and to protect their right to privacy. The subjects will have the opportunity to correct the record at any time, including names or events. In addition, the subjects may withdraw at any time without penalty.
Informed Consent

III. Subject’s Permission

I have read and understand the Informed Consent and conditions of this project. I have had all my questions answered. I hear by acknowledge the above and give my voluntary consent for participation in this project.

I understand that I may withdraw at any time without penalty.

_________________________________________  ______________________
Signature                                      Date

Should I have any questions about this research or its conduct, I may contact:

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Virginia Polytechnic Institute and State University

I agree to have my interviews tape recorded under the conditions described in Section II.

_________________________________________  ______________________
Signature                                      Date