

DOCKETED
USNRC

2003 JAN 13 PM 2:48

OFFICE OF THE SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

In The Matter Of:

PRIVATE FUEL STORAGE, L.L.C.

HUGH L. HORSTMAN

December 11, 2000

Beta Reporting

910 17th Street, N.W.

Suite 200

Washington, DC 20006

(202) 638-2400 or (800) 522-2382

*Original File AAHRSTMN.TXT, 237 Pages
Min-U-Script® File ID: 1365266823*

Word Index included with this Min-U-Script®

[20] threats.
[21] But 3 to 4,000 feet is very common.
[22] Q: When you say any threats —

Page 53

[1] A: Well, as I mentioned if there was [2] some radar set up and you were already in [3] your tactical scenario, typically speaking, [4] going down the Seviars, you're not in the [5] tactical scenario, you're still doing your [6] warm-up exercises, working on timing, looking [7] at your radar, looking at your navigation [8] pod, your targeting pod, trying to get [9] comfortable with the airplane, if you will. [10] It takes five or ten minutes to do that, make [11] sure all your systems are working before you [12] want to get more aggressive and go into a [13] higher stressed regime of flight.

[14] Q: So the G awareness test will be [15] part of the warm-up exercise you would do?

[16] A: Uh-huh.

[17] Q: Colonel Fly has referred to this [18] flight as the administrative routine flight, [19] you would agree with that, then?

[20] A: I would.

[21] Q: When would you, under what [22] circumstances would you fly lower than 3 to

Page 54

[1] 4,000 feet?

[2] A: One time I was out and we were [3] still flying terrain masking, we were doing [4] that and one of the members of our formation [5] was qualified for the lantern terrain [6] following radar. So he and I, we flew down [7] at 5 or 600 feet all the way through the [8] Seviars for practice. The lower you go, the [9] more training it takes.

[10] 10 or 15 years ago we flew most of [11] our sorties at very low altitude and the [12] threats and the Air Force mission has changed [13] such that we don't do that as much anymore. [14] We still maintain that capability.

[15] So I've been through the Seviars at [16] 500 feet, 600 feet probably five or six [17] times. I've been through the Seviars at [18] 17,000 feet, say, five or six times, as well.

[19] So it would depend on the tactics [20] of the mission. If it was a medium altitude, [21] medium risk kind of mission, or if it was a [22] high threat, low altitude ingress over in the

Page 55

[1] UTTR, you might want to try that earlier.

[2] Q: When you say the five, six times [3] less about 1,000 feet —

[4] A: Over the course of one year.
[5] Q: Over the course of one year you're [6] talking about.

[7] Now, did you actually fly the 5 to [8] 600 feet in Skull Valley itself north of [9] Dugway?

[10] A: Oh, yeah.

[11] Q: I thought there was the local range [12] rule says above 1,000 feet north?

[13] A: No, you can actually go down to 500 [14] feet in the Seviars.

[15] Q: That's a general rule, but isn't [16] there a range manual?

[17] MR. GAUKLER: Do you have the [18] report, a copy of the report, PFS report with [19] you?

[20] MS. NAKAHARA: Yes, most of it.

[21] BY MR. GAUKLER:

[22] Q: If you'd look at Tab B and tell me

Page 56

[1] whether you recognize what's at Tab B?

[2] A: I do recognize it.

[3] Q: And what's at Tab B?

[4] A: Tab B is the Air Force instruction [5] 13-212 weapons ranges.

[6] Q: And what is that document, what's [7] its function?

[8] A: It provides a guidance for range [9] activities for, well, in this case it's about [10] the UTTR, which is what we are talking about, [11] but procedures, et cetera.

[12] Q: Procedures?

[13] A: Uh-huh.

[14] Q: And that's done by the range [15] squadron?

[16] A: It is. And it goes up and gets [17] approved through the headquarters, but they [18] are the ones who really do the work on it.

[19] Q: It goes up the line for approval?

[20] A: Uh-huh.

[21] Q: If we look at what I think is page [22] 12, page 13. The pages 11 and 12, and they

Page 57

[1] have, like, fight avoidance areas table and [2] down there they have, if you look under [3] Sevier MOAs and they say Sevier MOA, Sevier [4] B, minimum altitude 1,000 AG north of 40 [5] degree, 13 minute north?

[6] A: Uh-huh.

[7] Q: 40 degree, 13 minutes north, is [8] that approximately Dugway?

[9] A: Where's the 41. There's 40 degrees [10] and, let me get this right for you —

[11] Q: 13 minutes, I think.

[12] A: 40 degrees, 13 is slightly north of [13] Michaels.

[14] Q: Slightly north of Michaels English [15] Village?

[16] A: Dugway.

[17] Q: Yes. And am I correct in [18] interpreting that to saying that if I were at [19] that point, it should be no lower than 1,000 [20] feet?

[21] A: Yeah, but just above that, the rest [22] of it you can go below.

Page 58

[1] When I say through the Seviars, [2] when you first enter here, you're at 7,000, [3] typically, out by what we call Stanch Bridge [4] Island and then as you turn to the south, [5] you'll organize your formation just like you [6] would, legally you could cancel, go down to [7] 500 feet, right over the Salt Lake. No one [8] does that, there's no value to it, and then [9] you fly to the south.

[10] So as you're organizing for warm [11] ups, et cetera, you would do that. [12] Additionally, the G warm-ups, we always tried [13] to do them at 2,000 feet or above. The [14] closer to the ground, the riskier it is, you [15] know. There have been crashes during the G [16] warm-ups because they were close to the [17] ground, so you want to be a little higher, [18] above 1,000 feet, for sure.

[19] Q: And where do you do your warm-ups [20] when you go down to Skull Valley, varies?

[21] A: It would vary depending upon your [22] time and the fuel, the ordinance you had on

Page 59

[1] board. If you were carrying a lot of [2] external storage, you would want to delay it [3] a little bit down the Seviars, even five [4] minutes would make your plane slightly [5] lighter so you could do a better G warm-up.

[6] So it would depend on the mission. [7] I know some guys who they would go to within [8] about a mile of one edge, east or west of the [9] MOA, do a 90-degree turn towards the middle, [10] do a 90-degree turn towards the south.

[11] I know some that would go down [12] south of Dugway where it was wider, do, where [13] you had lots more room and would do it and [14] wouldn't have to worry about the navigation [15] issues as much.

[16] So, it was pretty much flight lead [17] dependent.

[18] Q: In what type of situations would [19] you fly up towards the 17,000?

[20] A: Predominantly weather conditions.

[21] Q: Predominantly weather con-

PRIVATE FUEL STORAGE, L.L.C.

you generally agree with that?

[7] A: For one of the, if there's a two [8] ship, for one of the two, yeah. But not for [9] both.

[10] Q: Well two ships, are you talking [11] about a mile apart?

[12] A: Mile and a half to two, mile to [13] two, yeah, we'll do that.

[14] Q: So generally both those would be, [15] say, east of Skull Valley Road, in that [16] situation that would be generally the [17] predominant route?

[18] A: Yeah, I guess that's fair to say.

[19] Q: If you have a squadron of four, it [20] would basically be the same thing, just have [21] the other two behind the first two?

[22] A: Correct.

Page 105

[1] Q: Now, you also say that we don't [2] take into account the fact that during [3] maneuvers you may be pointed at the site at [4] particular times.

[5] Are you talking about geo awareness [6] maneuvers?

[7] A: Generally the geo awareness [8] maneuver would come after you pass south of [9] the proposed site, as I mentioned before, [10] maneuvers such as a tactical turning [11] maneuver, getting your aircraft oriented [12] towards flying down to the south after a [13] turn.

[14] Q: Now those maneuvers could be, [15] wouldn't those maneuvers essentially cancel [16] out in a sense that while you may have a [17] plane at one point in time flying towards the [18] PFS facility, then it does a maneuver so it's [19] pointed away, even though it's still, if you [20] want to look at it, flying towards it and [21] another time you may have a plane flying two, [22] three miles off site of the PFS facility and

Page 106

[1] one of its maneuvers points towards the [2] facility? Don't those two cancel out —

[3] A: No, they add up.

[4] Q: Why?

[5] A: Because essentially if the leader [6] is going to point at the site and the wing [7] man is up wind, if you will, to the right, [8] they are going to turn left, they are both [9] going to be pointed directly at the site for [10] a certain period of time as opposed to random [11] distributor on the eastern side.

[12] Q: But if they are flying down the [13] middle of the Valley, they will be pointed [14] away from the site, correct?

[15] A: At certain points, yeah.

[16] Q: Don't both those two cancel out? [17] Both those random distributions, at

one point [18] you have a plane, on each you have two [19] randomly distributed routes, one down the [20] east side and one down the center where Skull [21] Valley is?

[22] A: I don't agree with that at all.

Page 107

[1] Q: You don't?

[2] A: No, I don't.

[3] Q: Why not?

[4] A: Because if a pilot is going to plan [5] a mission down the Skull Valley, he doesn't [6] pick a turn point in the middle of somewhere [7] that he can't identify. He wants to pick a [8] turn point that's identifiable for a variety [9] of reasons, timing, system updates, altitude [10] updates, et cetera.

[11] Currently in the Skull Valley, [12] there are no really good distinct cultural [13] build-ups. The farms aren't significant [14] enough. The road intersections are dirt [15] roads, so if you're looking with a lantern [16] pod or night vision goggles or whatever, they [17] are not very identifiable.

[18] There's a knoll that they use [19] towards the east that just gets you in the [20] ball park of where you belong. If the PFS [21] site is built, then what will happen is that [22] will be a, call it an IMEG, you'll be able to

Page 108

[1] see it day and night under certain [2] conditions, visually you will be able to see [3] it with a radar. Right now you can see none [4] of those with a radar until you're right on [5] top of it, so they don't use those. They use [6] just north of the edge of the line. There's [7] a 6,000 and a 48 foot kind of a knoll, and [8] they use that as general aiming to get down [9] into the area for their radar and their [10] visual.

[11] Q: When you say just north of the [12] line, you're talking about —

[13] A: Just north of the Sevier MOA, east [14] of the road you were talking about.

[15] Q: And that's on the Stansbury [16] Mountains?

[17] A: Correct. If you build a site that [18] has vertical and horizontal cultural [19] build-up, you'll be able to see it on the [20] radar. You'll be able to see it visually. [21] You'll be able to see it with night vision [22] goggles. You'll be able to see it with

Page 109

[1] infrared, and it will be a logical point to [2] aim at for a turn.

[3] And if you were to go look at a [4] historical routing down through the Seviars, [5] you'll find that there are some very [6] predominant turning areas because there's [7] something that's iden-

tifiable in the Skull [8] Valley. Whether it's a mountain peak or [9] whether it's a road intersection, you will [10] find certain things that are more [11] identifiable than others.

[12] In the middle of Lake Sevier down [13] south, there really isn't a whole lot to [14] identify, so you wouldn't choose that. The [15] U.S. highway that's a blacktop highway, you [16] would use that at a certain turn point or a [17] certain intersection. Up in the north [18] Seviars there's essentially nothing that's [19] finite enough to update the NAV system: that [20] you need.

[21] Q: What do you use now, when you are [22] talking about updating the NAV systems, what

Page 110

[1] are you referring to?

[2] A: Well in each airplane you have a [3] INS and you do in the F-16.

[4] Q: INS being?

[5] A: Internal navigation system, I'm [6] sorry. You want to make sure that that's [7] accurate and you want to make sure that all [8] of your sensors are slewed to where they are [9] supposed to be based on that internal [10] reference point.

[11] So if your radar is looking at an [12] offset point and your lantern targeting pod [13] is looking at an offset point, you want them [14] to look at the same exact point, and so you [15] have to see that they are.

[16] If it's, as an exaggeration, if [17] they were one degree off, they would be [18] completely out of kilter. They really need [19] to be precisely oriented and you need to be [20] able to refine very, very delicately where [21] they are aimed.

[22] So you want something that you can

Page 111

[1] find like that, that's easy to find initially [2] and then you can refine it later on. A you [3] zoom in, you would want to refine it to one [4] corner of fence post or something like that.

[5] But in each of those cases, you're [6] going to pick a turn point that you can [7] identify. The most identifiable is the [8] easiest to pick. If you were flying down [9] Interstate 80, you would pick an off ramp. [10] At a point on that off ramp there would be a [11] sign or something but it would lead you into [12] that point and you would be able to refine it [13] on that sign post or something that I was [14] mentioning.

[15] If PFS builds a site in here, that [16] will happen. That's logical, that's what [17] fighter pilots do when they plan points. And [18] they've already pre-planned number of [19] points throughout the Seviars, at least [20] there's a database i

CLEAR REGULATORY COMMISSION

Docket No. _____ Official Exh. No. 99
In the matter of 985
Staff _____ IDENTIFIED
Applicant RECEIVED
Intervenor _____ REJECTED _____
Other _____ WITHDRAWN _____
DATE 5-14-02 Witness _____
Clerk D. Kent