

NTSB CVR Presentation: 4/22/04

- all CVR under local rule / Mouss.
- only last 31 min recorded (Europe has 2 hr. reg.)

- 10:01:08 "Is that it? I mean, shall we pull it down?" (CAM-1) left seat
- 10:01:09 "yes, put it in it, and pull it down" (CAM-2) right seat

* Comm panel one of the easiest thing to figure out. ∴ likely that the 09:31:57 transmission (bomb onboard) was potentially intended for outside. Pass. did not hear it - for sure.

- intrusion = 9:28:16 (mayday) ^{→ + communication} → ATC @ Cleveland would have heard this
- "get out of here / fight" = 9:29:48 → ATC hears this _{→ 2x} too

(- Bomb onboard announcement 9:31:55
~~9:29:14~~ 9:29:14 ATC's notice 93 decended, attempts to contact 93.

- likely \leq at least 13 killed \approx 9:36-37

★

9/11 Classified Information

Drafted in Course nearly spot-on w/ no corrections,

afterward.

- 120° mag. heading good for NCK
- HS does input decent rate @ 9:40 Bk

JR Question:

- ACALS acknowledgment happen after you read it?

- possibly flew by highways @ 09:57
ble descends to 5000 ft.

* - Jim does not think Passengers
got into cockpit

77

462 kts @ impact

NTSB CRV & Data Briefing April 22, 2004

Location:

- Cleveland Center hi-Alt frequency @ 35,000 ft
(9:02 - got to that height)
- pilot checks in at 35000 ft (9:26 -)
- discussion of the taking planes into Philadelphia
- 9:24 "because cockpit intrusions were sent"
Altitude starts dropping 9:05/06
- 9:28:20 hear screaming over Toron center

high frequency
The controller is talking on the ground
talking from the landline to ground coordin.
and then airplane was more attentive to the trans-
mission - plane is around 34,300 ft -
at point of transmission (screaming)

crew is using the yoke-mounted microphone *

pilot is over powering the autopilot,
something bumped the ~~wheel~~ controls

if let go, the yoke will go back where it
is supposed to

after second screaming, discussion of whether the
plane ^{UAL 93} descended... autopilot brings the plane
back to 35,000 ft. No action w/

UAL 93 has descended?

Verifying the altitude of UAL 93... no response
~~from~~ ~~is~~ ~~a~~ ~~plane~~

controller

asks another plane if they heard the screaming.
~~3~~ 3 planes hear the screaming - confirming
it was not interference.

controller is noting out other planes

Start w/ bomb on board transmission

muffled voices

only Arabic - hear controller in the background

no no no shut up

no more build off no no no (9:34:14) reach up ^{sw. tech. +} autopilot - disconnect warnings were going off ^{off}

didn't hear ~~boom~~ "Allahs in the name of God"

female voice
tapping

sit down sit down - telling someone to get down

37718 feet going into turn as female warning/
gagging sounds. there are slapping sounds

no audible.

9:36:59 38950 ft very quiet in

cockpit

"everything fine" - 9:38 - 40550

they have the frequency up.

he went to vertical speed mode. reengaged autopilot.
Banking - he initiated the turn

reaching up on the glare shield +
~~traced~~ ~~pushed~~ in new heading -
there is discussion about using hand
held GPS
he tried in DCA but too far away
he had some way to know how to
fly. ~~Some~~ Garrath did buy one
the evidence was not ~~not~~ found of GPS
It was the same w/

"within
VR"

the manual for the GPS was found at the hotel

'75 pilots thought they weren't smart enough
to programmed in...
wave points, or GPS?

9/11 Classified Information

Doesn't think the guy knew he was climbing
the guy dials in two misprints vertical
speeds.

"42-down" & "13-down"

doesn't know he is in a climb b/c
he had reengaged the autopilot.

Pilot got too low too fast
power setting - slowing down.
Interim speed warning at 9:40
20 maughts from stall mode

"The pilot doesn't know what he is doing"

It seems like he was told to leave
it on autopilot at all costs

9:39:00 * "bomb on board" ^{remains quiet.} back to the airport - "transmission went over
frequency shot to cabin

controller immediately tried to raise
VAC 93

There is alot of jostling in the cockpit

* Same voice as "the down, down" statements
earlier?

The pilot has regained the
vertical speed descent - the autopilot is still on
telling it to go / automatically accelerates
~~400~~ ft per minute

"120 heading" → magnetic heading
does take him to SC - Annapolis -
DC & Baltimore. He is going right direction
he may have winds cranking him off heading
worth.

he wants to get the plane to
20,000 to level off -
Turned it down to 5,000 ft ~~eventually~~

Vertical speed of 4200
~~takes it back~~

77 plane did flight level change

73 plane did vertical speed change

Did he plan out what he ~~was~~ wanted
to do? - punch in ^{low altitude} - may be an attempt to
5' below radar.

9:40 - 9:41 he turned off transponder &
pilot dialed in the vertical speed.

9:36 was the 1st call ~~to~~ from passengers

9:36 Bradshaw & Bingham calls - back in the plane

VIOLENCE

2 pass had throats slit.

W- ~~capt~~ capt lying in first class

stabbing of flight attendant.

All accounts say there are three hijackers

ARRS message below of cockpit, intruders
have to scroll down and print & rip it off and

can't read the message on the screen - ?

24 transcontinental fit the probe
the radio ctrl would have went more
to the pilot

ATIS in from the airline & a.c. 1.26

we know he received the message b/c he
wrote back to Ballenger

he is slowly dropping ... 9:41:18 355

he had had dialed off frequency - The Cabin
(chrome - call button in the back - UHF
he is flying flipping through the dial.
he lights on an ATIS for runway in Penn
doesn't know ~~what~~ why he did a that

(Auto Terminal Info System)

9:41:58 no more radio
the guy spins the frequency b/c he can't figure
out how to use the radio

9:43:00 - 29000
9:44:00 25000
9:44:41 - Sinen goes off
} ~~quiet~~ - quiet
figured out how to
turn the radio down
no longer heard in
cockpit

9:43:57

9:47
9:45

swap let the sums be in - let them take to the pilot

ATIS speed warning = out 260 KTS - 350 KTS

The average at 200 kt, 387 was rather ^{good} coverage

warning went off 340 9:45:49 320 320 and

slowing down - aircraft tones -

Alt is now 2000 - going down brings net speed made up to zero going through 20,000 ft

2 load checks - 9:46 - 20389 - 264

NMAD NETAD says it at 19000 ft. at about 9:47:30 is in autopilot descent. FAA can still see it.

" Alt correct 9:48:40 - 17,700 - 250

7:50:13 sounds of papers rustling

Laughing sound } QUIET!

9:51:30, 14200 - 289

more rustling 9:52:42 12600 292

9:53:35 " Plane is steady. cockpit is sweet!
let him look through the window "

translator can't figure out what the intelligible man
is

There is a PFRP hole in ~~and~~ ~~the~~ the cockpit door

what did they do w/ the ax? nothing is ever
said
passenger was stabbed

" bring the guys in put the ax into it -"
a live person or a dead person? "it"

9:55:02 9,706 292

- a break in the
audio

5,000 dialed in to level out

Wiz duet' rustling papers - he's turning the
plane 9:57:52 6031 293 there is no
sound of stress here so 09:0 used the
auto shield - very good question why he
would do that.

Getting ready to go into alt hold -
the airplane moving over to new selected
heading - at low altitude they could have
flown highways. He might have had a map.
He's in PA. Not many roads there

Flight path -
Air Traffic VFR sighting - there
arent other planes that would have
caused him to turn.
It must have been something

1 GPS
2 DLA VR
3 Highway } tools he used. 9:57:45

It appeared it followed a highway - maybe
VA 73 did too.

9:58 - "call home - getting ready to force the
whip it" CeCe Lyles to husband - the
passengers are getting ready. CeCe is ex-
police officers

9:57: . Arabic
he is moving the wings side to side
was to take the passengers off balance

9:59:27

got the crash is when he loads the nose up

100047 - plates crashing - plane brings nose up

cut off the oxygen 10:01

10:01 48 2 loud crashes

probably pressurization - at that altitude it wouldn't matter.

Don't know what "pull it up" means

The ~~control~~ column pull it down w/
pull the ~~bar~~ ~~open~~ as plane nose up -

Yelling in the cockpit would have been really loud

The people in the back were "rag dolls."

Pass went in the cockpit.

The pilots are strapped in.

could never figure out the sound of loud air ^{couple in}
CO2 fire extinguishers one in the cockpit + ~~at~~ back
The air noise at this ~~speed~~ speed would be too
much

Ed felt said white smoke & explosion + CO2
to John Shaw

10:02:50 The plane is still recoverable.
Possibly a cabin door was opened to the air?

Instruments wouldn't show if a door in the
press cabin was open.

The door opens in -

Nothing fell out of the plane

The door was never found at site

The ground alt there was about 2,100 ft

"Should we put it in, and pull it down -"
That means crash it -

"Finish it off" crash the plane?

There is no indication the passengers penetrated
the cockpit

"Bring the ~~co~~ pilot ~~to~~ back in"

That was about the time of the air speed
warning. The pilot wasn't actually brought back in

did the hijackers or any of the passengers tell them
about the WTC - that heading toward the WTC?

Q or 93 when do you think he stopped looking for DC - was it the disruption in the cabin or his disorientation.

What would Jarrah want the terrorists to be saying to the passengers?

"Window" why necessarily the window in cockpit door

AA 77:

6,000 ft NY on AUTOPILOT
VFR guidance

climbing - using ground references to align himself.

he might have practiced this approach circling to line up. He can't see it

" he never trims to relieve the back pitch

AA 77 is a much better pilot.

did he have a map display up?

he nailed the turn ~~for~~ over the annex normally, he ~~is~~ planes are at half the speed

400 miles per hour - (462) at impact w/in second

Soliday doesn't think he could have done it