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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

MAC Control
No. C-115958

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MICROFILMED

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GEMINI XI VOICE COMMUNICATIONS

(AIR-TO-GROUND, GROUND-TO-AIR AND ON-BOARD TRANSCRIPTION)

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Victor P. Nechyba
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 DOD DIR 5200.10

MANNED SPACECRAFT
HOUSTON, TEXAS



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CC 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0
00:00:00 CC LIFT-OFF.
00:00:04 C Clock's running.
00:00:07 C Go, you big Mother!
00:00:11 C Roll Program.
00:00:12 CC Roger. Roll.
00:00:17 P That's beautiful out there!
00:00:19 C That's a beautiful roll!
00:00:22 C Roll complete.
00:00:23 CC Good.
00:00:25 C Pitch Program.
00:00:27 CC Roger. Pitch.
00:00:29 P It sure is pretty.
00:00:35 C Here comes that squadron.
00:00:41 C Beautiful!
00:00:49 CC 50 seconds.
00:00:50 CC MARK.
00:00:55 C Roger. Mode 2 delayed.
00:00:59 P ...
00:01:07 C ...
00:01:09 P ...
00:01:27 C How's she look on IGS?
00:01:28 P Looks good, Pete.
00:01:31 C Okay. A little yaw in steering here.

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00:01:32 P Yes. ... a little high on the pitch, but it's okay. It is about a 10th of a degree.

00:01:38 C Okay. 705.

00:01:39 P Mode 2.

00:01:40 C 1 plus 40.

00:01:41 C MARK.

00:01:42 C Roger. Mode 2.

00:01:44 P No trouble getting this out right now ...

00:01:48 C I've got the sun. I can't see anything without putting my hand up.

00:01:50 P Yes. Give us a DCS Update.

00:01:52 CC Roger. DCS.

00:01:56 C About 80,000. Man, we're on our way!

00:01:57 P Yes. Boy!

00:02:02 C Man, that's great!

00:02:04 P Isn't that something?

00:02:05 C Feels great!

00:02:06 C You need to keep in your mind that the son-of-a-gun is just about all right.

00:02:08 P ...

00:02:11 CC You're GO for Staging.

00:02:13 C Gemini XI is GO.

00:02:15 P How do those tanks look?

00:02:16 C Beautiful!

00:02:17 P Great!

00:02:22 C We're about -

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00:02:24 C - We are about a degree and a half high in pitch.
Stand by for an update.

00:02:30 C Stand by for Staging in 4 seconds.

00:02:34 P I've been ...

00:02:35 C It's good Staging and engine ignition.

00:02:38 P A little fast, not bad.

00:02:41 CC Roger. Staging and engine ignition.

00:02:48 P Have 2 degrees in yaw, 3 in pitch. Every ...

00:02:50 C Okay. We didn't get it.

00:02:51 P How's Lift-off?

00:02:52 C I've got it. Got it?

00:02:55 CC Guidance initiate.

00:02:57 P ... Lift-off Pitch Program.

00:03:00 CC Houston. Roger.

00:03:02 C Delta-P light back on.

00:03:03 P Yes.

00:03:07 P Delta-P light was off at Lift-off.

00:03:09 P ... look at.

00:03:15 C Okay. You can look around, Dick.

00:03:18 CC This is Houston. Everything looks good.

00:03:20 C Gemini XI. Roger.

00:03:26 C Cabin pressure to 54 right now.

00:03:29 P Looks good.

00:03:30 C All pressures are good.

00:03:32 P Delta-P's are good.

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00:03:41 C Got the horizon yet, Dick?

00:03:42 P It's beautiful out here.

00:03:43 C I've got it. I just got it out of the corner of my window.

00:03:45 P I got it before Staging.

00:03:54 P I feel some roll movement.

00:03:56 C Zero yaw. No rate coming up.

00:03:57 P No pitch. Rate 00.

00:04:07 C Say! Remember now, we've got to be all business here, you know.

00:04:09 P I know. ...

00:04:13 C Just like we were doing it in the old simulator.

00:04:14 P Yes.

00:04:16 CC Gemini XI, this is Houston. You are GO. Over.

00:04:18 C Roger. Gemini XI is GO here.

00:04:20 P Roger. IGS is all ...

00:04:25 P Play back.

00:04:50 CC MARK.

00:04:51 P Yawing just a little bit more, about 3/4ths of a degree low.

00:04:57 C Now we're at - we're at 5 minutes.

00:05:01 C MARK.

00:05:03 P Roger.

00:05:12 CC Roger. .8.

00:05:14 C Roger. Mark .8.

00:05:15 P IGS power ... the heck out of it.

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00:05:17 C Roger. .8.
00:05:27 C Yes. Stand by, coming up. We have 10 seconds.
00:05:30 P ...
00:05:34 P Oh boy!
00:05:44 C OAMS Control Power, ON.
00:05:46 P We're GO. C-Band, DIRECT.
00:05:49 P Continue just a little.
00:05:51 C Okay. ... a little.
00:05:58 CC Gemini XI, you're GO for M equals 1.
00:06:01 C Check. ... set it up.
00:06:08 P ... a bunch of junk.
00:06:10 C Hey! Get to work!
00:06:11 CC Thruster firing is plus 1. Over.
00:06:26 CC Gemini XI, I've got your IVI's plus 1 to you.
00:06:29 C Roger. Plus 1. The IVI's after Separation 39, 1 left, 0 up and down.
00:06:38 C I'm burning them.
00:07:10 P 15 seconds, down.
00:07:14 C 15 seconds, down. All right?
00:07:16 P Reading 69.
00:07:20 P Address 60 Mode is a plus 00089. That gives me 15 seconds, down.
00:07:27 C Okay. Stand by.
00:07:29 P Okay.
00:07:31 C MARK.

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00:07:32 C Burn it down.

00:07:45 C Okay.

00:07:47 P Okay. We're burning it.

00:07:48 C Gone to PULSE, PLAT.

00:07:54 P Going to PRELAUNCH.

00:07:55 C Burn jets. Stand by.

00:07:58 P Whee!

00:08:02 C Remember to Mark it pitch-up at fairing jets.

00:08:06 P Okay.

00:08:08 P Boost-Insert Safe Lever control's OFF.

00:08:15 C Stowed. Gone back to PULSE.

00:08:20 P Okay. Safe levers going to RESET. Over.

00:08:28 C ...

00:08:31 CC Gemini XI, Houston. Your Lift-off was 1/2 second late.

00:08:36 C Gemini XI. Roger. The burn is complete and we're just back Alining the Platform. The ATM Program is burn? Say again.

00:08:43 CC Fairings jettisoned. Over.

00:08:47 C Fairings are jettisoned and gave us quite a pitch-up --

00:08:53 P ...

00:08:54 C 39 forward and 1 left.

00:08:57 P Good. Gemini, 649, wasn't it?

00:09:03 C Yes.

00:09:05 C We changed the Program.

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00:09:09 C How do you like the waltzing up here, Buddy?
Right?

00:09:13 P Getting snippy, isn't it?

00:09:14 P ...

00:09:16 C Yes. Wait a minute. I've got to go into a - PLAT
here in just a second.

00:09:30 C Stand by.

00:09:36 C Okay. Fairings are jettisoned and I've got to get
the Retro Rocket Squib SAFE.

00:09:42 P 1, 2, 3, 4.

00:09:45 C 4. Radar to STANDBY.

00:09:46 P Just a minute and I'll go over ...

00:09:51 C That Secondary O₂ is locked, and I got a - I got a
- we really did get green men, didn't we?

00:09:55 P We sure did.

00:10:00 C Gosh, it's hot in this thing!

00:10:02 P Yes.

00:10:04 P Oh heck!

00:10:07 C What's the matter? What?

00:10:09 P I pulled the Ranger all the way OFF. It's stuck
on something else.

00:10:16 P ... over that cable, it's a good spot for it though.

00:10:21 P Okay.

00:10:27 CC Gemini XI, this is Houston. 1 minute to LOS.

00:10:29 C Roger. We're starting our 10-minute Check List at
this time. Everything is on schedule.

00:10:42 P Attitude to roll, continue to burn.

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00:10:45 C Wait a minute.

00:11:02 C Okay. ACM is doing just great.

00:11:06 C Platform's doing just great.

00:11:13 CC Gemini XI, this is Houston. Over.

00:11:18 C ...

00:11:22 CC Roger. This is Houston. You're in an 87 by 151 orbit. Over.

00:11:27 P 87 by 151. Sounds perfect.

00:11:30 C It doesn't feel like the zero-g airplane, does it?

00:11:31 P No, it's kind of ...

00:11:32 C Sure the heck isn't! This is something you'll never forget.

00:11:42 C There's a lot of stuff floating around the cabin again, I'll tell you that.

00:11:44 P Yes.

00:11:45 C A revolution or two will get rid of it.

00:11:49 C Okay. Let's play with all the good Check Lists.

00:11:51 P Oh, I've got to get to work. I have some computations here, Pete.

00:11:55 C Oh, okay. Go ahead.

00:11:57 P I'll get the heaters on.

00:11:58 P All Heaters ON?

00:11:59 C H₂O Heater's ON.

00:12:01 C That's enough.

00:12:07 C Okay. It's PULSE from here and PLAT. Heat it?

00:12:09 P Yes. Better get my pencil. Don't move that or I'll be in trouble.

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00:12:12 C Darn this thing ...
00:12:15 P That's what you call telelights.
00:12:18 C ... Spacecraft. I'll have to do something else
with my gloves. I'll stick them down the foot well.
00:12:21 P Good thing they put that ... around that thing.
00:12:24 C What?
00:12:26 P D-Ring stowed.
00:12:27 C Okay.
00:12:31 P Okay. I have the D-Ring stowed and the cover jetti-
soned.
00:12:32 C Okay.
00:12:35 P Got rid of yours yet?
00:12:37 C No. Good point. Another tape.
00:12:40 C Junk on them?
00:12:41 P No. Man, it's dirty! It's grease.
00:12:46 P Okay. Get ready. There mine went.
00:12:50 C Yes. He's getting ready.
00:12:52 C There went mine. Gosh! There's junk still on my
window.
00:12:55 P I'm all covered over too.
00:12:56 C Looks like ice.
00:12:57 P It has blue streaks all over it.
00:12:58 C It looks like ice.
00:13:04 P Yes. It does look like a film fog.
00:13:09 P Okay. On the ... heaters CLOSED. ... CLOSED ...
00:13:24 P And the Select to ADAPTER.

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00:13:25 C Yes.

00:13:27 P Looks cloudy as ever.

00:13:31 P Main Batteries - coming OFF with the Main Batteries.

00:13:33 C Okay.

00:13:41 C Hey! It really paid off in that simulator, didn't it?

00:13:44 P Number 3 is good.

00:13:45 C What?

00:13:48 P Number 3 is good. Number 3? Believe a good battery. Number 3 is a little ...

00:13:56 C Gosh darn window! It really makes me mad! Darn thing is just all fogged up.

00:14:02 P Yes. Mine is too.

00:14:06 P Major - 3 major listings, okay.

00:14:08 C All right.

00:14:10 P Jet Fairing, pushed?

00:14:11 C Jet Fairing was pushed.

00:14:13 P BIA is SAFE?

00:14:14 C BIA is SAFE.

00:14:15 P Okay. Uppers are SAFE?

00:14:16 C All 4 uppers, SAFE.

00:14:17 P Maneuver Controller OFF and stowed?

00:14:18 C It's OFF and stowed.

00:14:19 P FDR to PLAT?

00:14:20 C The FDR is to PLAT.

00:14:21 P FDM to ATTITUDE?

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00:14:22 C To ATTITUDE.
00:14:23 P The platform is SEF?
00:14:24 C The platform is SEF.
00:14:26 P Attitude Control Mode?
00:14:30 C Attitude Control is in PLAT.
00:14:31 P Okay. PLAT.
00:14:33 P Radar's in STANDBY?
00:14:34 C Radar's in STANDBY.
00:14:35 P Window covers jettisoned?
00:14:36 C The window covers are jettisoned.
00:14:38 P D-Ring, STOWED?
00:14:39 C The D-Ring is STOWED.
00:14:41 P Your left Secondary O₂ bottle?
00:14:42 C Shut off.
00:14:44 P Sequence lights?
00:14:46 C Sequence lights are going AMBER --
00:14:47 P Okay.
00:14:48 C -- and GREEN.
00:14:50 P Okay. ... install the reticle on the 16mm camera.
00:14:54 C The reticle is installed.
00:14:55 P Let's get out the camera and complete this stuff.
00:14:57 C Go ahead. I'll take care of the rest of it.
00:15:05 C Darn! I can't find a place for my gloves. They
won't go in the same place they did --
00:15:07 P I know. They won't go up here either. ... anymore.

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00:15:12 C Yes. You have a VW pouch with you.

00:15:29 C Darn! I'll collect the junk.

00:15:32 P Boy, there is a lot of debris.

00:15:35 C What?

00:15:36 P There's a lot of debris in here.

00:15:37 C Yes, plus the fact that it's awfully hot.

00:15:42 C Okay. There's an extra voice tape.

00:15:46 P Yes. I haven't had a chance to look out yet.

00:15:49 C Don't bother. We'll look at it on the next revolution.

00:15:51 P Okay.

00:15:52 C I've got to put my gloves in the ... They just won't go anywhere else.

00:16:07 C Say, how did the Pentax lightmeter go?

00:16:10 C The heck with it.

00:16:11 P It's supposed to be over there somewhere.

00:16:12 C Yes, it's behind the food. It's good.

00:16:14 P ... half we could ...

00:16:16 C What?

00:16:17 P ...

00:16:19 C I'll get it later.

00:16:20 P Okay.

00:16:21 C Let's get the other stuff first.

00:16:22 C Gosh darn, it's hot in here!

00:16:27 P ...

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00:16:28 C Yes.

00:16:43 C Well, that practice paid off.

00:16:45 P 27, this is 20.

00:16:48 C 47?

00:16:49 P ... 27 ...

00:16:59 P Let's practice on 4.

00:17:02 C Boy, don't scare me! I've got to hear familiar numbers.

00:17:05 P Yes, okay. (Laughter)

00:17:12 P 27:29

00:17:16 C See, the time is rapidly going by.

00:17:21 P Sure the heck is!

00:20:31 CC Roger. We won't have a Plane Change for you because we don't trust this data we've got. Over.

00:20:37 C Roger. ... no Plane Change ... to the left. Over.

00:20:44 CC Roger. Copy.

00:21:29 C Houston, Gemini XI. We had to burn ...

00:21:34 CC That is affirmative. Over.

00:21:37 C Houston. Affirmative.

00:24:15 CC Gemini XI, Houston. 1 minute to LOS.

TANANARIVE

00:34:19 CC Gemini XI, this is Houston. Over.

00:34:26 CC Gemini XI, this is Houston. Over.

00:34:30 P Go ahead, Houston. Read you loud and clear. Be advised we're in ... 50 miles ... How do you read

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us? ...

00:34:36 CC Roger. Your GET B for the Tunnel Phase Back-up is as follows. Over.

00:34:42 P Stand by 1 minute.

00:34:48 P Okay. We're ready to copy.

00:34:50 CC Roger. GET B is 49 plus 43; Address 25, 01396; Address 26, 00170; Address 27, 90066. X_{RA} is plus 18.9. Y_{RA} is minus 8.6. Range is 22.7 miles and Range-Rate is 107 feet per second, closing. Over.

00:35:33 P Gemini XI, ...

00:35:36 CC Roger.

00:35:39 C ...

00:35:51 C Now we have a visual line at about 75 miles and our voice ... and radar voice ... reading is 1/2 degree in roll, pitch and yaw.

00:36:01 CC Houston. Roger.

00:36:07 CC Gemini XI, Houston. Remember your radiator. Over.

00:36:10 C Roger. We're going to blow right now.

00:37:16 CC Roger.

00:38:57 C ... 24.7 miles.

00:40:51 CC Gemini XI, Houston. 1 minute to LOS.

00:40:54 C ... Flight.

00:40:58 CC Roger.

CARNARVON

00:53:59 CC Gemini XI, Carnarvon.

00:54:01 C Go ahead. Gemini XI.

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00:54:02 CC Your radiator is GO and we're giving you a GO for 16-1.

00:54:05 C Thank you. We're GO here, Bill.

00:54:27 C 70 percent right now. I expect that it will come up a couple of percent ... burn.

00:54:33 CC Roger.

00:54:41 C Carnarvon, give us a call 1 minute from LOS and remind us about our ECS O₂ Heater on MANUAL. We're running in MANUAL.

00:54:47 CC Roger.

00:57:21 CC Gemini XI, Carnarvon.

00:57:24 C Go ahead, Carnarvon.

00:57:26 CC Go ahead and turn the Heater OFF. We're about 1 minute to LOS

00:57:29 C Okay. We're still a little low but we will go ahead and turn it off.

HAWAII

01:16:13 CC Gemini XI, Hawaii standing by.

01:16:16 C Okay, Hawaii. We're at 15,000 feet. Roughly 50 feet a second and I have the Running light bright and I have the Staging light.

01:16:26 CC Copy that.

01:17:01 C Hawaii, we're on VOX at this time. You can listen.

01:17:04 CC Roger. Copy.

01:17:09 P 42 feet per second, Pete.

01:17:10 C How much?

01:17:11 P 42 feet per second.

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01:17:12 C Thank you.

01:17:13 P A mile and a half.

01:17:16 C I've got a Fire Cannon light.

01:17:18 P That's what I show. ... That's what I show.

01:17:22 C I believe I'll go ahead and brake a little bit.

01:17:24 P Okay. We are 1.3 miles.

01:17:26 C Okay.

01:18:31 P Up .29.

01:18:36 C I'm going to give you a second.

01:18:38 P Up .25.

01:18:41 P I've got a Range-Rate for you here.

01:18:44 C Okay. Just drop it down on me. Let them fire down.

01:18:47 C Yes. I expect to be in a bad quadrant.

01:18:49 P Yes.

01:18:54 P Radar shows down and right.

01:18:56 C ... second.

01:18:59 P All right.

01:19:07 C Back off a little bit.

01:19:11 P That's fine.

01:19:12 P ... 6,000 feet.

01:19:13 C Yes.

01:19:15 P 1 mile.

01:19:16 C Looks like I've got the rates about finished.
Thank you.

01:19:20 P .98 miles.

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01:19:22 P Looks like we're getting intermittent firing on
that darn thruster.

01:19:26 P It seems to be, I guess.

01:19:28 C Okay.

01:19:33 P All four 44 feet per second.

01:19:35 C Okay. I'm going to go ahead and brake it.

01:19:36 P Better brake it now.

01:19:38 C I'll take her right down to 25.

01:19:40 P Okay. .8 miles, 4800 feet.

01:19:50 C Think he is bright?

01:19:51 P He sure is, isn't he.

01:19:53 P Fantastic!

01:19:58 C The thrusters are popping.

01:20:00 P Yes.

01:20:03 C Now they ... SOP for awhile

01:20:07 C 3/4ths long, 4500 feet.

01:20:09 P What?

01:20:10 C 3/4ths of a mile.

01:20:11 P Yes.

01:20:12 P What did I do with those thrusters?

01:20:13 C They're down to 42.

01:20:14 P Yes.

01:20:15 C Here, use mine.

01:20:16 P Never mind. Never get them in the helmet.

01:20:18 C Okay.

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01:20:20 C May use them on the ...
01:20:21 P Yes.
01:20:23 C ... bit of that.
01:20:26 P Okay. 16 miles.
01:20:28 C Okay.
01:20:29 C Let's slow down a little bit.
01:20:31 P Let me give you a Range-Rate.
01:20:32 C What?
01:20:33 P Let me give you a reading.
01:20:35 C Where is that thing?
01:20:36 P Yes.
01:20:37 P 25 per second.
01:20:39 C Now I want to slow down a little bit.
01:20:51 C You're out in front of me just a little bit.
01:20:57 P Okay.
01:20:58 C Looks good.
01:21:00 C Okay. Let me know when we hit a half mile.
01:21:01 P You are there -
01:21:05 P A half mile right now.
01:21:07 C Okay.
01:21:10 P 3000 feet.
01:21:16 C Now he looks better.
01:21:26 P Okay. 50 feet a second.
01:21:27 C What?

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01:21:28 P 19 feet a second. 19.

01:21:32 C I'm going to close the point.

01:21:34 P Okay. .4 miles.

01:21:36 P 2400 feet.

01:21:40 P 38.

01:21:49 P Okay. .35.

01:21:53 C Let's see Range-Rate.

01:21:54 P A third of a mile, 2000 feet.

01:21:57 C That's alined on it.

01:22:00 P ... quite a ways out to get a peak ... You're quite a ways out.

01:22:03 C Okay.

01:22:06 P You've got 3 feet per second.

01:22:09 P 18 pull off.

01:22:11 P Pulling off the 10. Take off 9.

01:22:21 P Boy, is that bright!

01:22:26 P Quarter of a mile. 25.

01:22:27 P 1500 feet.

01:22:28 C What?

01:22:29 P 1500 feet.

01:22:30 C Okay.

01:22:31 C Give me a Range-Rate, will you?

01:22:33 P Stand by.

01:22:42 P It's about the brightest thing I've ever seen! 15 feet a second.

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01:24:51 P The Agena is out in front of us.
01:24:53 C Okay. 540 feet.
01:24:58 C The Agena is out in front of us ...
01:25:04 C 240.
01:25:07 C ...
01:25:11 P I'm here.
01:25:13 C Okay, Hawaii. We're here.
01:25:15 CC Gemini XI, this is Houston at California standing by.
01:25:20 C No MAPS. No MAPS.
01:25:23 P We're not getting any MAPS back from the Agena. We tried to send a command to it earlier. We lost our radar. ... an angle on our third correction, we never could switch antennas and we're not getting anything.
01:25:37 C ... 50 feet.
01:25:42 P Getting out here where I can see it.
01:25:45 CC Gemini XI, go ahead.
01:25:47 C ...
01:25:49 P Okay. Looks like he's made it.
01:25:55 C ...
01:25:57 CC Roger. We copy.
01:25:59 P ...
01:26:04 C ...
01:26:17 P ...
01:26:26 C ...
01:26:29 CC Gemini XI, Houston.

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01:26:30 CC Did you get the ACQ lights off? Over.

01:26:34 C No. We haven't turned them off yet. We'll be ...

01:26:38 CC Roger.

01:26:39 P Looks like 06 moment.

01:26:41 C Okay. We're not getting MAPS, but the ACQ lights should go off.

01:26:44 CC Roger. Understand. No MAPS, but the ACQ lights went off.

01:26:50 C Isn't on the radar, is it?

01:26:51 P Yes.

01:26:55 C Where is the sun? Can you tell me where the sun is?

01:26:57 P It's underneath you.

01:27:00 C That's the moon you're looking at.

01:27:04 P ...

01:27:06 C ...

01:27:08 P ...

01:27:09 C There's nothing on the radar.

01:27:19 C ... fogging my window.

01:27:22 P What?

01:27:23 C It's fogging up the window.

01:27:29 P Yes.

01:27:31 P Okay. 180 feet.

01:27:37 C What?

01:27:39 P I've got 180 feet.

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GUAYMAS

01:27:53 C ... What's your Range-Rate?
01:27:56 P I'm doing a little Stationkeeping.
01:28:00 C Yes.
01:28:01 P You're at 120 feet right.
01:28:22 C You never found that spot meter, did you?
01:28:24 P No.
01:28:27 P You're supposed to stop at 10.
01:28:32 C22.
01:28:34 P Yes.
01:28:36 C22.
01:28:47 C Hello, Houston. Gemini XI.
01:28:49 CC This is Houston. Go.
01:28:51 C We're Stationkeeping at about 50 feet..
01:28:54 CC Roger.
01:29:02 P ...
01:29:03 C What?
01:29:04 P You're at pitch 0. Very nicely done.
01:29:06 C Thank you.
01:29:10 C I can't see a thing in the cockpit. It's ...
01:29:20 C ...
01:29:23 P Yes. Hello, Houston. Gemini XI.
01:29:29 C Houston, Gemini XI.
01:29:33 C ...

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01:29:37 C Houston, this is Gemini XI.
01:29:39 CC Roger. This is Houston. Go.
01:29:41 C Roger. TPI reads ... percent.
01:29:45 CC This is Houston. Roger. Could you go on ...? You're pretty hard to read. Over.
01:29:49 C ...
01:29:53 CC Roger. Could you put the mike away from your mouth a little bit?
01:29:59 C How do you read us now, Houston?
01:30:01 CC Read you loud and clear, Pete.
01:30:03 P How do you read me now, John?
01:30:04 CC Much better.
01:30:06 P Okay. We're Stationkeeping. I'm looking at the TDA, and PQI is 56 percent.
01:30:12 CC Roger. Outstanding!
01:30:15 P Tell Mr. Kraft - would he believe M equals 1.
01:30:18 CC Beautiful!
01:30:21 P John, tell Mr. Kraft, would he believe M equals 1.
01:30:24 CC Roger. He believes it. Over.
01:30:30 P Say again.
01:30:32 CC He believes it.
01:30:47 C Got that. And do we go for Docking?
01:30:54 CC Roger. Could you send 050 BEACONS OFF and then 010 S-BAND ON before you dock? Over.
01:31:05 C You want 050 and what else do you want?
01:31:08 CC 050 BEACONS OFF and then 010 S-BAND BEACONS ON.

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01:31:20 C John, ... I don't get any ... Could you check it?
01:31:28 CC Roger. It's okay and you're GO for Docking. Over.

TEXAS

01:33:14 P Houston, this is Gemini XI. Would you want the Recorder OFF this time?
01:33:34 CC Roger. You can turn the Recorder OFF. Over.
01:33:37 P Roger. I've turned the Recorder OFF ...
01:33:44 C John, we're going to go ahead and dock at this time.
01:33:46 CC Roger. You're GO for Docking.
01:34:17 C We are docked. Beacon lights on.
01:34:25 P Okay, Houston. Post-Docking Check List complete. MAIN RED is off. MAIN GREEN is on. SECONDARY HIGH is on. SECONDARY LOW is on. ATTITUDE is on. POWER is on. Retro light is on. ... light is off. Over.
01:34:39 CC This is Houston. Roger.
01:34:55 P Houston, Gemini XI.
01:35:00 CC Go ahead.
01:35:01 P Roger. We had something funny happen during the Rendezvous when we couldn't switch the antennas and on our third correction, we had no azimuth or elevation. We still had our Range-Rate so we did make the third correction based on Dick's back-up. We're apparently getting MAP's now. This last one we just met, we got a MAP.
01:35:29 CC This is Houston. Roger.
01:35:31 P Houston, this is Gemini XI. I'm going to send the Engine Stop to ARMED and check the hardline connection. Over.
01:35:39 CC Houston. Go ahead.

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01:35:46 P Roger. Satisfactory.

01:35:57 C Our docked PQI reading is 55 percent.

01:36:01 CC Houston. Roger. That's just great, Pete.

01:36:07 C Thank you.

01:36:25 CC Gemini XI, Houston. Can you check your L-Band beacon? We show it still on here.

01:36:32 C Okay. We'll send it OFF.

01:36:48 P Tx update.

01:36:51 CC Roger. That's a Tx. Over.

01:36:53 P Tx.

01:39:18 CC Gemini XI, Houston. Check your O₂ pressure. Over.

01:39:22 C Roger. We just turned the Manual Heater ON.

01:39:26 CC That's it.

01:41:23 CC Gemini XI, Houston. Over.

01:41:27 C All right, Houston.

01:41:29 CC Roger. We clear to turn the encoder off to get a tape dump? Over.

01:41:35 C Roger. Encoder, OFF.

01:41:37 CC Roger.

01:41:38 C We're gyrocompassing right at this time.

01:42:12 CC Houston. Roger.

01:42:24 C Houston, Gemini XI.

01:42:26 CC Go ahead.

01:42:27 C Roger. ... on at this time.

01:42:31 CC Roger.

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01:42:41 C We're going to COMMAND at this time. Telemetry
going to COMMAND at this time, Houston.

01:42:51 CC Say again. Over.

01:42:55 C Go ahead.

01:43:01 CC Houston. Roger.

01:44:32 CC Gemini XI, Houston. Can you send a OOL to get the
C-Band Beacon back ON? Over.

01:44:39 C Houston, you want OOL sent?

01:44:41 CC That's affirm.

01:45:08 CC Gemini XI, Houston. We're not going to dump that
tape. You can turn your Encoder back ON.

01:45:13 C Okay. Encoder back ON.

01:45:47 CC Gemini XI, this is Houston. Is your Apollo camera
still going? Over.

01:45:52 C No. We turned it off after Docking.

01:45:54 CC Roger.

01:47:03 CC Gemini XI, Houston. Over.

01:47:09 CC Gemini XI, Houston. Over.

01:47:16 CC Gemini XI, Houston. Over.

01:47:23 CC Gemini XI, Houston. Over.

01:47:34 CC Gemini XI, Houston. Over.

01:47:44 CC Gemini XI. Over.

01:47:46 C Roger. Gemini XI. Over.

01:47:48 CC Roger. Could you turn your Manual Heater OFF?
Over.

01:47:55 C Roger. We just went to AUTO.

01:47:56 CC Roger. And would you confirm that your encoder

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was never off during that time? Over.
01:48:02 C Confirm. It was never off.
01:48:04 CC Okay. Thank you. 2 seconds to LOS.

ASCENSION

01:53:48 CC Gemini XI, this is Houston at Ascension. Over.
01:53:52 C Go ahead, Ascension.
01:53:56 CC Roger. You're nominal.
01:54:00 C Roger. ...

01:54:03 CC Roger. Did you find that Spot Meter? Over.
01:54:07 C I know where it is, John. I just never bothered
to take it out as fine as we've been.
01:54:11 CC Roger.
01:56:49 C Houston, Gemini XI.
01:56:51 CC Houston. Go.
01:56:52 C Check point of D-3 is complete.
01:57:11 CC I understand D-3 complete. Over.
01:57:14 C What was that? Say again, Houston.
01:57:20 CC Roger. Understand D-3 complete. Over.
01:57:23 C That's affirmative.
01:57:25 CC Roger.
01:59:43 CC Gemini XI, Houston. Over.
01:59:45 C Go ahead, Houston.
01:59:47 CC Roger. We have a nodal update for you if you have
time to copy. Over.

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01:59:53 C Just wait 1 second and I'll be with you. Go ahead.
We're ready to copy.

01:59:58 CC Roger. The Nodal Update: 02 plus 37 plus 31. For
Rev 2, 136.1 degrees east; 1 hour and 49 minutes,
right ascension.

02:00:20 C Roger. Houston, say again. After the ...

02:00:29 CC Roger. It's 136.1 degrees east and 1 hour and 49
minutes, right ascension.

02:00:37 C Roger. Copy.

TANANARIVE

02:12:09 CC Gemini XI, Houston at Tananarive. Standing by.

02:12:12 C Roger. Be advised we've undocked and we're just
commencing S-26 at this time.

02:12:19 CC This is Houston. Roger.

02:12:40 CC Gemini XI, Houston. 1 minute to LOS.

CARNARVON

02:25:44 CC Gemini XI, Carnarvon.

02:25:48 P This is Gemini XI, Carnarvon. Go.

02:25:51 CC Roger. Have you completed the S-26?

02:25:54 P Gemini XI. We have completed Mode B, Sequence 1.
We're doing Mode B, Sequence 2. In another 10
minutes we will be through. Do you copy?

02:26:07 CC Roger.

02:26:08 P You'll probably have to dump it at Hawaii, Bill,
but it only took us 8 minutes to do the first one.

02:26:12 CC Okay. Press on.

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02:26:56 CC Gemini XI, Carnarvon.
02:26:57 C Go ahead, Carnarvon.
02:26:58 CC Would you place the Quantity to read ECS O₂?
02:27:01 C Roger. On ECS O₂. ... we just put the Heater ON again.
02:27:07 CC Roger.
02:27:10 C Say hello to everybody down there for me.
02:27:12 CC Sure will. Would you go to H₂?
02:27:21 C Roger. Going to H₂.
02:27:36 CC You go ahead and start the purge.
02:27:41 C Roger. We're ready to start the purge.
02:27:44 CC Go ahead.
02:29:54 CC Gemini XI, Carnarvon.
02:29:55 C Go ahead.
02:29:56 CC Stand by. I'm going to transmit T_X.
02:29:57 C Roger. Standing by.
02:31:45 CC 1 minute until LOS.
02:31:48 C Roger. See you next pass.
02:31:52 P Roger. Sequence 01 is completely finished. I'll continue on Computer in Section 2.
02:31:56 CC Roger.

HAWAII

02:50:52 CC Gemini XI, Hawaii.
02:50:54 C Go ahead, Hawaii. Gemini XI standing by.

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02:50:57 CC Roger. Place your T/M switch to COMMAND, please.

02:51:01 C T/M to COMMAND.

02:51:12 C We're ready to dump the tape. We have an S-26 Mode B, Sequence 01 and 2 on that 02. Excuse me, 2 and 3.

02:51:23 CC Roger.

02:51:34 C Okay. It's S-26 Mode B, Sequence 01 and Sequence 02.

02:51:43 CC Okay. Copy that.

02:51:50 CC Confirm your Recorder is OFF.

02:51:57 C Recorder OFF.

02:51:59 CC Roger. We'll get the tape dump.

02:54:03 CC Gemini XI, Hawaii. I'm going to send a TX.

02:54:06 C Okay. Standing by.

02:54:38 CC Gemini XI, Hawaii. Would you give me a Propellant Quantity readout, please?

02:54:42 C Roger. Your Propellant Quantity is a - it's about 49, 50 - 50 percent, something like that. 49-1/2.

02:54:51 CC Copy.

02:54:58 C We're getting more efficient as we go along here.

02:55:01 CC Yes, I noticed that.

02:55:03 CC How's our weather over Hawaii?

02:55:05 C We're in DCS Mode, Alining the Platform right now. There's a great deal of cloud cover here over the Pacific and I see a rather large cloud cover to my left, which would be toward the south. Maybe it's Francesca or Gretchen or somebody.

02:55:22 CC Okay.

02:55:40 C Let us know when you get the tape dump. We'd like

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to press on with this S-26.

02:55:44 CC Roger. Will do.

02:57:04 C Hawaii, Gemini XI.

02:57:06 CC Go ahead.

02:57:07 C Now ask them back there at MCC at the Cape if Neil's around - if he ever saw the paint all blistered off of the side of the Agena. We've got a great deal of paint off and it also looks like it has some sort of anodize - anodizing done to it or something. I was just wondering, in all the night Stationkeeping in front of it, if we didn't put our fuel on it.

02:57:35 CC Okay. Fine. We'll find that out for you. Incidentally, we're through with tape dump. You can put your Recorder back ON and depress.

02:57:42 C Okay. Back ON.

CALIFORNIA

03:00:34 CC Gemini XI, this is Houston at California. Over.

03:00:37 P Roger. This is Gemini XI. Starting S-26 Sequence 03.

03:00:45 CC Houston. Roger.

03:01:01 C Houston, be advised we're doing several parts of S-26 and I have it 18 inches to the sensors at this time.

03:01:15 C And I can also see the flame reflection of four or five thrusters in the TDA.

03:01:31 CC Houston. Roger.

03:01:51 C Houston, Gemini XI.

03:01:54 CC Go ahead.

03:01:56 C Hey, Tom, did you have a lot of blisters on your Agena? Over.

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03:02:01 CC Roger. There were some paint blisters on it.

03:02:04 C Roger. We're about to fly near the TDA and there are some blisters on this one.

03:02:11 CC Roger. We'd like to get some pictures of that. Over.

03:02:13 P We've got some.

03:02:16 C It also has a deposit on the unpainted surface that looks like salt or anodizing. You know, some sort of oxidizing.

03:02:28 CC This is Houston. We agree with that.

03:02:39 C I'm finally getting a little braver here in doing my Stationkeeping in OAMS and it seems to be pretty economical.

03:02:47 CC Houston. Roger.

GUAYMAS

03:04:46 P Houston, this is Gemini XI. We have to report the Main Propulsion 51 seconds.

03:04:55 CC Houston. Roger. 51 seconds.

03:05:22 C Say, Houston, this is Gemini XI. We ran our voice tapes within the hour and we didn't get a light, and I'm not exactly sure it's working at all. We did put a new tape in for S-26 and I'll continue when we have a few minutes, but I think we lost our voice tape.

03:05:42 CC This is Houston. Roger.

03:06:44 C Houston, Gemini XI.

03:06:45 CC Houston. Go.

03:06:47 C Did they get that tape dump in from Hawaii yet? Did that S-26 data look any good?

03:07:02 CC They got data from Carnarvon.

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03:07:06 C How did it look?

03:07:08 CC Carnarvon data looks pretty good.

03:07:10 C Okay. I just wanted to make sure they were getting it in the right place.

03:07:15 CC Roger. I have an Agena Docked Update burn for you, if you're ready to copy?

03:07:20 C Ready to copy. No, wait a minute! He dropped his pencil.

03:07:33 C Okay. We're ready to copy.

03:07:35 CC Roger. Purpose: Calibration Burn. GET B: 04:28:32; Delta-V, 104.4; Delta-T_B, --

03:07:49 C We're not --

03:07:52 CC -- 1 plus 28.

03:07:54 C John, we're not getting you. You cut out. We got 1 plus 28 percent.

03:08:00 CC Roger. The purpose: Plane Change; GET B: 04:28:32; Delta-V, 104.4; Delta-T_B is 1 plus 28; Address 27, 0104.4; TPS burn. Over.

03:08:29 CC TDA north.

03:08:37 C Now this we understand. Plane Change: 04:28:32; Delta-V, 104.4; Duration, 1 plus 28; Address 27, 0104.4; TDA north.

03:08:56 CC That is affirmative.

03:09:01 CC This is Houston. That is correct.

03:09:04 C Gemini XI. Roger.

03:09:32 CC Gemini XI, Houston. Will you give us a call on UHF Number 2? Over.

03:09:38 C Roger. Going to UHF Number 2.

03:10:05 C Hello, Houston, Gemini XI. On UHF Number 2 how do you read?

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03:10:09 CC Houston. Read you loud and clear on UHF Number 2.

03:10:13 C Gemini XI. Roger. Going back to UHF Number 1.

03:10:15 CC Roger.

03:10:59 CC Houston, Gemini XI. Over.

03:11:01 C Go ahead.

03:11:03 CC Roger. We want to check and make sure you're refrigerated and your S-4 blood package is working. Can you check by feel and see if it's cold? Over.

03:11:15 C The outside of the package feels like it's putting heat into it. It's warm.

03:11:20 CC Roger.

03:11:24 C However, the handle is cold. It's quite cold, so I'm sure the refrigeration is working.

03:11:29 CC Roger. That indicates your refrigerator is working.

03:11:35 CC Can you guys move the mikes away from your mouths? I think that is part of our problem on communications. Over.

03:11:43 C How do you read us now?

03:11:45 CC That's a little better. Try a little farther away.

03:11:48 C Roger. About 2 inches. We'll be better when we get our helmets off and get over in our lightweights.

03:11:49 CC Roger.

03:11:50 CC That's much improved. Over.

03:11:56 C Okay.

03:11:58 P How does this mike sound now?

03:12:01 CC That's pretty scratchy.

03:12:03 P Say again?

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03:12:05 CC That's a little better.
03:12:07 P Roger.

TEXAS

03:12:29 CC Gemini XI, Houston. Can you turn your velocity -
your Encoder OFF for a Velocity meter load?
03:12:35 C Roger. Encoder is OFF.
03:13:13 C Houston, Gemini XI.
03:13:15 CC Houtson. Go.
03:13:17 C Okay. We're through with the S-26. We're going
to go ahead with our Pilot Docking. ... you can
dump the Agena tape any time you want to.
03:13:30 CC Houston. Roger.
03:14:07 CC Houston, this is - Gemini XI, this is Houston.
We're taking a tape dump and doing a time reset
now. Over.
03:14:15 C Okay. Understand.
03:14:54 P Houston, this is Gemini XI. Your Velocity meter
is loaded and the load is good.
03:14:59 CC Understand.
03:18:05 CC Gemini XI, Houston. Over.
03:18:07 C Go ahead, Houston.
03:18:09 CC Roger. Did you get any MAPS when you undocked?
Over.
03:18:12 C Roger. We have to be right on top of it to get a
MAP and we're 70 - 80 feet away. We don't get MAPS
through our radar. I don't know what the problem
is. By the time we're in close to it using the
radar, we get a MAP.
03:18:27 CC Houston. Roger.

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03:18:31 C We're about to record a first here. The Pilot is about to dock.

03:18:37 CC Roger.

03:19:13 P Houston, Gemini XI.

03:19:15 CC Go ahead. This is Houston. Go ahead.

03:19:20 P Roger. Mark one Docking for Richard Gordon.

03:19:25 CC Roger. We chalked that up. One for the right-seaters.

03:19:32 P Again?

03:19:33 CC One for the right-seaters.

03:19:38 P ...

03:20:30 CC Gemini XI, this is Houston. Over.

03:20:32 C Yes?

03:20:34 CC Roger. You can turn your Encoder back ON. The tape dump is good.

03:20:39 C The Encoder is coming ON.

03:21:34 CC Gemini XI, this is Houston. 1 minute to LOS.

03:21:39 C Roger, Houston. We're right on the Flight Plan. Everything is complete so far and we'll press on.

03:21:46 CC Houston. Roger.

03:21:51 C PQI is 46 percent fuel remaining.

03:21:57 CC Houston. Roger.

ROSE KNOT VICTOR

03:26:22 CC Gemini XI, RKV CAP COM.

03:26:27 C Hello RKV. Read you loud and clear.

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03:26:30 CC Roger. Would you turn your Encoder OFF, please?
We'd like to run a tape dump.

03:26:35 C Roger. The Encoder is OFF.

03:26:38 CC Roger. Thank you.

03:32:38 CC Gemini XI, RKV. We'll have LOS shortly. Would you
turn the Encoder back ON? We're through with the
tape dump. Thank you.

03:32:47 C Roger. Encoder is back ON and we ... Flight Plan
...

03:32:54 CC Roger. Understand. On the Flight Plan.

ASCENSION

03:33:45 CC Gemini XI, this is Houston at Ascension standing by.

03:33:49 C Roger, Houston. We are just cooking up a little
lunch right now.

03:33:54 CC Roger.

03:35:43 CC Gemini XI, Houston. 1 minute to LOS.

TANANARIVE

03:46:11 CC Gemini XI. This is Houston at Tananarive standing
by.

03:46:15 C ... we are in the process of doing S-26 Mode A.

03:46:23 CC Houston. Roger.

03:53:43 CC Gemini XI, Houston. 15 seconds to LOS.

03:53:47 C Roger, Houston. We are just completing S-26 Mode
A. ...

03:53:55 CC Houston. Roger.

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COASTAL SENTRY QUEBEC

04:11:32 C CSQ, Gemini XI ... Over.

04:11:37 CC Roger. We're watching you come around.

04:11:40 C ...

04:11:44 CC Roger. I'm sending you the Tx at this time.

04:11:46 C Roger.

04:12:06 CC Gemini XI, CSQ. Could you turn your Encoder OFF so we can get a tape dump, please?

04:12:11 C Encoder OFF.

04:12:28 C CSQ, would you give us a call about 2 minutes from LOS? I've got something I want to tell you.

04:12:34 CC Roger. Will do. I'll give you your GET Time Hack at this time.

04:12:39 CC ... Okay. In about 20 seconds it will be 4 hours and 13 minutes.

04:12:48 C That makes sense.

04:12:59 CC 3, 2,

04:13:01 CC MARK. 4 hours and 13 minutes.

04:13:07 C ...

04:13:13 CC Okay, Gemini XI, CSQ. Would you turn your Manual heater on and pump that O₂ pressure up a little bit, please?

04:14:18 C Roger. It's ON.

04:15:04 CC Gemini XI, CSQ. About a minute and a half to LOS.

04:15:11 P Roger. ... at the last Docking we turned our Radar OFF ...

04:16:22 CC Say again. I couldn't read you.

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04:16:24 P Roger. Using the radar, we never could lock on the Agena ...
04:16:34 CC Roger. Understand.
04:16:38 CC Gemini XI, CSQ.
04:16:41 CC Cape's got a GO for your PPS burn.
04:16:43 P Roger.
04:17:13 P CSQ, Gemini XI. Do you want my ...
04:17:19 CC Stand by for awhile, Gemini XI.

HAWAII

04:26:45 CC Gemini XI, Hawaii.
04:26:46 P Go ahead.
04:26:47 CC Have you got time to send 340?
04:26:51 P Roger. We'll send 340. What is it?
04:26:53 CC VM INTERROGATE.
04:26:54 P Roger.
04:27:00 P ...
04:27:01 CC Roger.
04:27:50 CC Gemini XI, Hawaii. You're GO for the burn.
04:27:52 P Roger.
04:28:35 P 501 sent.
04:28:36 CC Roger.
04:28:44 CC Confirm Camera ON.
04:28:54 P Roger. Camera is ON. Sump Tank Cameras are ON.
04:28:57 CC Roger.

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04:29:26 CC FTS initiate.
04:29:28 C Roger.
04:29:41 P ...
04:30:36 P We're showing an O₂ to water on Section 1 Delta-P.
04:30:46 CC Looks like the Ascent Phase.
04:30:49 CC Roger.
04:30:57 P Okay. ... it looks like on my IVI's, 111 forward,
4 right, and 3 up.
04:31:09 CC Roger. We copied that.
04:31:13 C Roger. 80 is 110.4
04:31:19 CC Say again on 80.
04:31:21 C 80 is 110.4
04:31:24 CC Okay. Copy that.
04:31:27 C 81 is minus 2.7.
04:31:32 CC Copy.
04:31:33 C Roger. 82 is minus 3.3. Over.
04:31:39 CC Roger. We copy that.
04:31:49 C We have Main Engine time. We have 57 seconds re-
maining.
04:31:55 C Secondary propulsion is 3 plus 31. Over.
04:32:01 CC We copy that also.
04:32:24 CC What are you showing - on Attitude Test?
04:32:30 P Attitude Test reads about 73 percent.
04:32:34 CC Thank you.

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CALIFORNIA

04:36:15 CC Gemini XI, this is Houston in California. Over.

04:36:18 C Hawaii ...

04:36:21 CC Roger. You're about to get off your normal Flight Plan.

04:36:27 C Go ahead.

04:36:28 CC Would you check your tape to see whether that CO₂ ...

04:36:31 C ...

04:36:41 CC They should have told you that right on the ground ... exposure. We have the plans coming in already. We are setting up the detail right now and ... exposure time.

04:36:58 CC Roger. That's good. Have the data for you right now. At 5 hours, 11 minutes and 3 seconds, take the pictures with the S-29 equipment. Take a picture of the Gegenschein, pitch 17 degrees up, at sunset; Comet Berran near the Gegenschein, the second picture; and the third picture, Comet Kilston. They are out there and sunset is 5 hours, 11 minutes and 3 seconds. Over.

04:37:33 P Roger. We copy. 5 hours, 11 minutes, 3 seconds and I think we need ... to comet. All we have is the Gegenschein.

04:37:41 CC Roger.

04:37:52 P We also need exposure time on the film.

04:38:02 P And I agree with you, John, riding that PPS is the biggest thrill we've had all day!

04:38:10 CC Thing really moves, doesn't it?

04:38:12 P ...

04:38:25 P Hey, John. After all, you are supposed to monitor the STP. Look at your rate needle and your yaw ...

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04:38:34 CC Roger.

04:38:38 P Be advised we got photographs at the proper settings and we got ... Scanners ON and OFF.

04:38:47 CC Roger.

04:38:49 P And we get gyroing BEF to SEF on the Spacecraft.

04:38:54 CC Roger.

GUAYMAS

04:44:05 P Houston, Gemini XI.

04:44:06 CC Houston. Go.

04:44:08 P I don't understand why our windows got so dirty, but both our windows are really dirty. They're twice as dirty as they were on Gemini V and we had the window covers on. I don't understand.

04:44:21 CC Roger. Do you have them on right now?

04:44:24 P Say again.

04:44:25 CC You - before or after that PPS burn? Over.

04:44:32 P Can't hear you.

04:44:34 CC Was it during the PPS burn that they smudged up?

04:44:37 P No. They've been smudged up ever since we jettisoned the covers - as soon as I got rid of the covers. It seemed that as soon as I got rid of the covers, the windows were dirty. Now that could have been my imagination, they could have been dirty already, but whatever it was must have come off ... because they were dirty just as soon as we jettisoned the window covers.

04:44:58 CC Roger.

04:45:18 CC Gemini XI, Houston. You do have the exposure time for the Gegenschein and the Comets, don't you?

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04:45:37 CC Gemini XI, Houston. Over.
04:46:02 CC Gemini XI, Houston. Over.
04:46:04 P Go ahead, Houston.
04:46:06 CC Roger. You do have exposure time for the Gegen-schein and the Comets, don't you?
04:46:12 P Hold one. Let me look at the photo book.
04:46:15 CC They're in there, and - -
04:46:33 P Okay. We've got the time. Roger.
04:46:43 CC And at 5:26, the Comet Kilston pointing command is yaw 143 degrees left and pitch 16 degrees up. Over.
04:46:55 P Yaw 143 degrees where?
04:46:57 CC 143 degrees left and 16 degrees up. Over.
04:47:05 P That's yaw 143 degrees left and pitch up 16 degrees. That makes it 536 plus 00.
04:47:11 CC Roger. That's yaw 143 degrees left, 143 degrees.
04:47:17 P Okay, I've got it. You're fading in and out for some reason.

ROSE KNOT VICTOR

05:02:24 C Okay, RKV. Be advised we got the camera all put together after a bit of a struggle.
05:02:30 CC Roger. I understand. Very good.
05:06:21 CC Gemini XI, RKV. We have cleared the tape dump from the Agena. You can turn your encoder back on now, please.
05:06:26 C Roger. Encoder coming back on at this time.
05:08:23 CC Gemini XI, RKV. We will have LOS shortly. ...
05:08:26 C Roger. Be advised ... and we are picking up the 73 degrees.
05:08:30 CC Roger.

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TANANARIVE

05:21:33 CC Gemini XI, this is Houston at Tananarive. Standing by.

05:21:38 P Roger. We're taking our last Gegenschein at this time and ready to go for the Comet.

05:21:43 CC Houston. Roger.

05:21:50 P I had a real wrestling match with that camera. We finally got it all together.

05:21:56 CC This is Houston. That sometimes is that way.

05:23:46 P Houston, Gemini XI.

05:23:47 CC Go ahead. Over.

05:23:48 P Gegenschein complete. We are going to the Comet.

05:23:53 CC Roger. I understand that Comet Barban is near the Gegenschein. Over.

05:24:03 P Okay. It probably is in the same photograph with it then.

05:24:06 CC Roger.

05:29:15 CC Gemini XI, Houston. 1 minute to LOS.

05:29:20 P Roger. 1 minute to LOS. The Comet photographs are complete. We are going to TDA forward, Spacecraft BEF, at this time.

05:29:36 CC Roger.

COASTAL SENTRY QUEBEC

05:44:45 CC Gemini XI, CSQ CAP COM.

05:44:49 C Hello CSQ, Gemini XI here. Go ahead.

05:44:51 CC Roger. We've got you GO on the ground here. Send your TX.

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05:44:55 C Roger. We're GO up here and we've completed everything ...

05:45:00 CC Roger.

05:46:58 CC Gemini XI, CSQ.

05:47:00 P Go ahead.

05:47:01 CC Okay. We notice you have the Dead-Band narrow. We sent a Command 451.

05:47:11 C Roger.

05:48:03 CC ... CSQ.

05:48:06 P Go ahead.

05:48:07 CC Have you sent ... low, Command 460?

05:48:12 P Roger. ...

05:49:36 P CSQ, Gemini XI. ... one.

05:49:41 CC Roger.

05:52:14 CC Gemini XI, CSQ. About a minute to LOS.

05:52:17 P Roger. How do we look?

05:52:19 CC You're looking real good here on the ground.

05:52:22 CC You still have your L-Band ON.

05:52:24 P Say again.

05:52:26 CC We show you still have the L-Band Beacon ON.

05:53:30 CC It's in Command 000.

05:53:35 C Roger.

05:53:37 C CSQ, this is Gemini XI Command Pilot. ...

05:53:41 CC We read you loud and clear.

05:53:43 C Roger. ... Thank you.

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HAWAII

06:02:32 CC Gemini XI, Hawaii.

06:02:34 P Gemini XI. Go ahead.

06:02:35 CC Roger. I have a Flight Plan Update for you.

06:02:40 P Wait one.

06:02:41 CC Roger.

06:03:03 C Ready to copy, Hawaii.

06:03:04 CC Okay. Over Hawaii at 07:38:00; Crew Status Report.

06:03:15 C We have that Flight Plan.

06:03:17 CC Okay. At 08:00:00, purge fuel cells, Section 2, Step 1.

06:03:28 C Roger.

06:03:38 CC I'd like to ask you a couple of questions if you've got a minute.

06:03:41 C Go ahead.

06:03:45 CC Okay. This is in regard to the L-Band problem you had during the S-26 where you mentioned something about you didn't have L-Band lock, but you sent commands and you verified the commands, or something like that. Could you explain a little bit?

06:03:54 P Roger. We had no Lock light and the radar was not locked-on, but when we'd send a command, we'd get it back.

06:04:02 CC How about that!

06:04:04 P Yes. That's what I said. How about that!

06:04:06 C A little more to that story too. When we undocked the second time, I used the hardline switch and after we did the last S-26 and came back into the Docking position, we did not have a Dock light. I don't believe the cone was completely unrigidized,

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so I turned the radar on and it said 220. Got a MAP and got a Dock light, but we never did get a Radar Lock-on light.

- 06:04:37 CC I see. Evidently you were not squeezed in there good enough.
- 06:04:40 P That could be.
- 06:04:43 CC Okay. Someone somewhere copied that you had a little bit of a problem with your down-thrusters during your Terminal Phase maneuvers. Did you?
- 06:04:51 P I kind of had the impression that when I was firing down, I was getting intermittent firing. But I can't prove that.
- 06:05:00 CC Okay.
- 06:06:22 CC Gemini XI, Hawaii.
- 06:06:24 C Go ahead.
- 06:06:26 CC Roger. I'd like to know if Dick, while he was trying his Docking practice, used that down-thruster at all.
- 06:06:32 P We haven't noticed it recently in that thing. It seemed to be okay at the start.
- 06:06:37 CC I see. Did you use that down-thruster at all, Dick, when you tried your Docking?
- 06:06:41 P Yes. I sure did. I didn't notice anything wrong with it. I think Pete's is all right now too.
- 06:06:47 CC Oh, I see. Okay. We thought maybe it was in one of those controllers.
- 06:06:50 C We were correcting line-of-sight rates and I was firing long - you know 2, 3, or 4-second bursts out of it - and I thought I could hear it firing intermittently. It could have been the Rate Command System, but it just sounded different to me. It didn't sound like I was getting it steadily.
- 06:07:13 CC Okay.

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06:07:14 C In all the Docking work and Stationkeeping and everything, we've just been blipping it and it has always fired for us.

06:07:23 CC Okay. We copy that.

06:07:24 P Hawaii, Gemini XI.

06:07:25 CC Go ahead.

06:07:26 P We have powered-down per the Flight Plan.

06:07:28 CC Roger. My - we are monitoring all that down here.

06:07:31 P Okay.

06:07:32 CC All your systems look perfect.

06:07:35 P Okay and the PQI is 43 percent fuel remaining.

06:07:39 CC Thank you.

ROSE KNOT VICTOR

06:37:17 CC Gemini XI, RKV.

06:37:20 C Go ahead.

06:37:21 CC Roger. Would you place your Quantity Read switch to the O₂ position please? Thank you.

06:37:26 C Roger.

06:37:31 CC 235 on O₂.

06:37:35 CC Okay and would you place it to H₂, please?

06:37:39 C Roger.

06:37:47 CC H₂ is 252. 252.

06:37:53 CC Gemini XI. I have a PLA Update for you when you are ready to copy. That will be Block 2.

06:38:03 P Pilot ready to copy.

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06:38:06 CC Roger. Area 8-3: 11:48:13; 21 plus 29, 27 plus 40; roll left 58, roll right 5 - whoops, I'll say again. Roll left 85, roll right 95. Area 9-Delta: 12:44:33; 20 plus 27, 25 plus 54; roll left 85, roll right 95. Area 10-2: 14:17:5 ...; 20 plus 20, 25 plus 52. Area 11-2: 15:53:24; 20 plus 18, 26 plus 00. Area 12-2: 17:31:41; 20 plus 31, 26 plus 23. Area 13-1: 18:57:12; 20 plus 18, 26 plus 13. Area 14-1: 20:32:55; 20 plus 35, 26 plus 43.

06:40:11 CC Last one. Area 15-1: 22:08:15; 20 plus 51, 26 plus 57. Bank angle for all areas is roll left 85, roll right 95. Weather is good in all areas and they include a Sep Maneuver. Over.

06:40:38 P This is Gemini XI. Roger. Copy.

06:40:44 CC We have nothing else for you at this time. We're standing by.

06:40:47 P Roger. Quantity Read switch back to OFF?

06:40:52 CC Roger. Would you go back to OFF, please.

06:40:58 C RKV, this is Gemini XI. I'd like you to pass to Houston that the windows are so dirty that the one on the EVA - we'd like to have permission to try and clean one.

06:41:11 CC Roger. Stand by. We'll see what they have to say.

06:41:13 C Well, they can think it over for the night and let us know tomorrow.

06:41:17 C ... the windows are so dirty that we'd like to do something about them.

06:41:19 CC Okay. Flight says he has copied that and they'll give you information tomorrow.

06:41:25 C Fine.

06:43:29 CC Gemini XI, RKV. We'll have LOS in approximately a minute.

06:43:33 C Thank you. We're getting ready to have the Pilot do his night Undock and Dock. Over.

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06:43:39 CC Roger.

TANANARIVE

06:57:26 CC Gemini XI, this is Houston. Over.

06:57:28 C Say again. This is Gemini XI.

06:57:33 CC Roger. How was your Docking practice? Over.

06:57:38 C Oh, it went just fine. Dick backed her out and backed her right back in there again. We're on the Flight Plan. PQI is 4 - 4 percent or so. 43 percent fuel remaining.

06:57:52 CC Roger. Superb!

06:57:55 C Say again.

06:57:57 CC That's great, Pete.

06:58:00 C I've got a lot of noise, John, and can't understand you.

06:58:11 CC Roger. I just want to say you guys really had a great day. It's wonderful.

06:58:19 P Thank you very much.

06:58:30 C ... dump the tape over CSQ and we've already - so if you'd like a Crew Status Report now, we can give it to you.

06:58:46 CC Roger. That's your desire. Over.

06:58:51 C Okay. We ate Meal 1 - Day 1, Meal C. Dick ate everything and I have eaten everything except the brownies and I'll give you a water gun reading in just a second.

06:59:07 CC Roger.

06:59:10 C Roger. The water gun reads 617 and I'd say that was about - -

06:59:16 P 450 to start.

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06:59:17 C -- equally split between the two of us and it was 450 to start.

06:59:23 CC Roger.

06:59:30 CC I have a nodal update for you if you are ready to copy. Over.

06:59:41 C Roger. We're ready to copy.

06:59:53 CC Roger. The Time is 10 hours, 8 minutes and 56 seconds per Revolution 7. 21.1 degrees east. 1 hour, 42 minutes, right ascension. Over.

07:00:06 C Roger. I copy 10 hours, 8 minutes, 56 seconds. ... 21.1 east. Right ascension is 1 plus 42.

07:00:16 CC That's correct. Over.

07:04:20 CC Gemini XI, Houston. 1 minute to LOS.

07:04:24 C Roger. We read you loud and clear now. Much better than before.

07:04:30 CC Roger. Your copy improved too since you went to light-weights. Over.

07:04:35 C Yes. I finally got mine off. I couldn't get it off for awhile there.

COASTAL SENTRY QUEBEC

07:20:19 CC Gemini XI, CSQ.

07:20:22 C Go ahead, CSQ.

07:20:24 CC Roger. We are going to send you a Tx at this time.

07:20:28 C Roger, Flight.

07:20:30 CC Like to have you turn your encoder off so we can get a tape dump from the Agena.

07:20:35 C Roger. Encoder is on OFF.

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07:21:14 CC Gemini XI, you are GO here on the ground. We'll be standing by.

07:21:18 C Roger.

07:26:13 CC Gemini XI. CSQ.

07:26:15 C Go ahead, CSQ.

07:26:17 CC Okay. We're showing you running a little bit high here on your amperage. Have you completed all of your Power-Down Check List?

07:26:23 C No, we haven't yet, but we will in just a few minutes.

07:26:27 CC Roger.

07:26:49 CC Gemini XI, CSQ. You can turn your Encoder back ON. We have completed the tape dump.

07:26:54 C Roger.

07:27:44 CC Gemini XI, 1 minute to LOS. I'll be standing by.

07:27:48 C Roger.

HAWAII

07:39:01 CC Gemini XI, Hawaii.

07:39:15 CC Gemini XI, Hawaii CAP COM.

07:39:22 C Roger, Hawaii. This is Gemini XI. Go ahead.

07:39:24 CC What's the position of your Real-Time T/M switch?

07:39:31 C It's in the COMMAND position.

07:39:34 CC Roger. How about putting it to REAL-TIME and ACQ-AID.

07:39:37 C Roger. REAL-TIME and ACQ.

07:39:57 CC Would you go back to COMMAND?

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07:39:59 C Back to COMMAND.

07:42:36 CC Gemini XI, Hawaii.

07:42:42 C Go ahead

07:42:43 CC Okay. During your sleep period - well, before your sleep period - we'd like you to pump up that O₂ tank pressure to 765.

07:42:52 C Roger. 765.

07:42:54 CC Right. At the present decay rate, we've got about 100 psi per hour.

07:42:59 C All right.

07:43:00 CC It'll probably go a little bit low during the sleep period, so if either one of you gentlemen wake up, you might pump it up during the night.

07:43:07 C Okay.

07:43:13 CC And don't go above 765.

07:43:16 C Roger.

07:44:09 CC Gemini XI, Hawaii.

07:44:11 C Go ahead.

07:44:12 CC Okay. Would you send a RESET TIMER RESET for us, 060?

07:44:16 C Roger. 060. It's reset.

07:45:26 CC All right. Thank you.

07:46:14 CC Gemini XI, Hawaii. 1 minute to LOS. Standing by.

07:46:17 C Roger.

07:46:22 C We'll go ahead and power-down UHF now. Thank you very much and good night.

07:46:26 CC And a good night to you.

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HOUSTON

16:11:25 CC Gemini XI, Houston.

16:11:30 P Pilot here. How are you?

16:11:32 CC Just fine. How do you feel this morning?

16:11:35 P Bright eyed and bushy tailed.

16:11:37 CC Roger. Good show. Get a quick shower and shave and get back to work.

16:11:45 P Should we take a little snooze just now? Are we powered-up or do we wait for the platform to come up?

16:11:50 CC Roger. When you get the time, send 060, which is RESET TIME RESET to the Agena.

16:11:58 P Roger. Going 060. Yes, and it's validated.

16:12:05 CC Roger.

16:12:23 P I've got some details for you when you are ready to copy.

16:12:27 CC We're ready. Go ahead.

16:12:30 P Yes. I've been thinking about this wide-band business and having no radar lock, and it concerns me a little bit about our counter exercise. I don't know what you people have been thinking about on the ground. I think there should be some way before we undock with tether hooked-up so we can ascertain if we can control the Agena from the Gemini. Maybe we had better undock again, one of these days, and power-up the radar over a station and see if we really are getting commands into it or not.

16:13:05 CC Roger. Gemini XI. We have been kicking that around down here also and we are going to give you some more information on it, plus probably ask you a few questions on Revolution 13 as you pass over the States.

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16:13:18 P Very well.

16:13:36 CC Gemini XI, Houston. Our ground indication shows that, even though you are not getting any MAP lights, there is every indication here that all your commands are getting into the Agena.

16:13:50 C Okay. That sounds pretty good. We sometimes got a MAP and sometimes we didn't. The one suspicion we had that we didn't get a MAP, was that we never could. When we had radar lock, we didn't get a MAP, excepting the switch of antennas during radar tracking. We tried both positions and we should have gotten a MAP on one of them. We should have gotten a MAP on both of them.

16:14:17 CC Roger. Pete, there's been a lot of question as to exactly how long you're holding the Transmit switch in the TRANSMIT position while waiting for a light when you're undocked.

16:14:28 P What would you say, couple of seconds?

16:14:30 CC Roger. That's what we thought. We just wanted to verify it.

16:14:34 C Don't forget now. While we were Stationkeeping we never could get radar lock-on. I implied that the Lock-on light was still working. That's why I'm confused, because apparently we get MAPS without the radar being locked-on. Is that possible?

16:15:08 CC Right now, Gemini XI, from the best of our indications down here on the ground, we think the problem is in the return circuitry from the Agena to you in both the MAP and the Radar Lock-on light. This is the one thing that would explain both the anomalies that you have seen.

16:15:27 P Okay.

16:16:01 CC But we'll be talking with you more about it when you come over the States in about an hour and a half.

16:16:31 P Okay.

16:17:37 CC Gemini XI, Houston.

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16:17:44 P All right, Houston.

16:17:46 CC Roger. When you do come across the States, we are going to want to not only talk about the MAP lights and the Lock-on light, but we are going to try to get some sort of feel for the FDI problem you had at the same time and see if we can get some correlation between all those three anomalies.

16:18:03 P Okay. I can give you a little bit on that right now. It's just that the FDI Started to wander off in pitch and yaw. We nearly broke lock and we tried to switch the antennas and they wouldn't switch. And it made our third solution bad.

CANARY ISLANDS

16:21:40 CC Gemini XI, Canary.

16:21:42 P Good morning, Canary. Gemini XI here.

16:21:45 CC How's it looking up there?

16:21:46 P Just fine.

16:21:48 CC Okay. We're having a standby for Tx here.

16:21:53 P Standing by.

16:22:11 CC Okay, Gemini XI. We show you GO on the ground here. We have a Flight Plan Update for you to copy during this pass and we'll start your fuel cell purge in a second.

16:22:26 C Roger. We're ready to copy the Flight Plan Update at this time and then the fuel cell.

16:22:35 CC Okay. Title: Node at 16:10:00; Rev 11; 71 degrees west; 1 hour 34 minutes, right ascension. Title: Sierra 11 at 17:14:12; Sequence Number 02; Load Number ALFA. That's the end of the Flight Plan.

16:23:24 P Roger.

16:23:25 CC We're ready for your fuel cell purge at your convenience. Section 1, then 2.

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16:23:32 P Roger. Stand by.

16:23:51 P Okay. I'm starting the hydrogen on Cell Number 1.

16:23:54 CC Roger. Understand.

16:24:10 P Okay. Start the hydrogen on Number 2.

16:24:15 CC Roger.

16:24:44 P Okay. Starting the oxygen to Number 1.

16:24:50 CC Roger. Understand.

16:26:47 P The oxygen complete to 1, flowing to Number 2.

16:26:50 CC Roger.

16:28:54 P Canary, the fuel cell purge is complete. The platform just came up on the line.

16:28:59 CC Roger. Would you place your Cryo switch to O₂?

16:29:03 P Roger. O₂.

16:29:27 CC Okay. Cryo switch to H₂.

16:29:30 P Roger. H₂.

16:29:41 CC Cryo switch OFF.

16:29:44 P Roger.

16:29:47 CC Okay. We are less than a minute to our LOS here and you're still looking good on the ground. Both vehicles are real good and I think they will talk to you a little bit more on the FDI later on. You were cut out over Antigua at LOS, and we don't have enough time to talk about it here.

16:30:04 P Okay. We are going to FCI and Alining the Platform.

16:30:08 CC Roger. Understand.

16:52:18 C 00 minutes and we've just spent 15 minutes working with this darn camera on S-29.

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16:52:24 P Testing voice recorder. 1, 2, 3, 4, 5, 5, 4, 3,
2, 1.

CARNARVON

16:59:50 C Good morning, Carnarvon, Gemini XI here.
16:59:54 CC Go ahead, Gemini XI.
16:59:55 C Roger. We're GO.
16:59:57 CC Roger.
16:59:59 C Ready for the Crew Status Report?
17:00:01 CC Okay.
17:00:03 C Command Pilot ate Meal 4th day, Meal A. And ate
everything but three bacon cubes and six cinnamon
toasts.
17:00:16 CC Roger.
17:00:17 C And the Pilot ate the 4th day Meal A, all but four
bacon squares and two cinnamon toasts.
17:00:27 CC Roger.
17:00:28 C And the water gun ... 04.
17:00:33 CC Didn't catch that, Pete. Say it again.
17:00:35 C 804.
17:00:38 CC Roger.
17:00:40 C And both crew members slept 4 hours well.
17:00:44 CC Roger.
17:00:49 C We have gyrocompass and TDA south and SC-1 and
we're standing by to power-down the Agena and do
our S-11 Sequence Mode 2.
17:01:02 CC Roger.

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17:01:20 C Carnarvon, Gemini XI.

17:01:21 CC Go ahead.

17:01:23 C Roger. About 8 hours into the flight, our RCS Ring A light came on and we went to RCS Heaters and slept with them all night. We've just been checking now, when we have had the heaters on all night, but we show that we need RCS heat on both rings.

17:01:42 CC Roger.

17:02:28 C Also Carnarvon, when we cycle the circuit breakers, we can't see any power drop on our amps.

17:02:37 CC Roger.

17:03:50 CC Gemini XI, Carnarvon.

17:03:53 C Go ahead.

17:03:54 CC Okay, Pete. The instrumentation on the RCS looks good and it appears that you'll have to continue to play with the heaters.

17:04:00 C Okay. We'll just leave them on.

17:04:02 CC Roger.

17:04:27 CC Gemini XI, Carnarvon.

17:04:29 C Go ahead.

17:04:30 CC The amps that you'll be drawing will be about .25 so you probably wouldn't see it.

17:04:34 C Okay.

17:05:01 CC Gemini XI, Carnarvon. We're coming up on LOS.

17:05:05 C Roger. See you next pass.

17:05:06 CC Roger. Roger.

17:13:30 C We are starting the S-11 photographs. The recorder is on and the time is 17:13:30.

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17:13:40 P We don't have a horizon yet. Right?

17:13:43 P Pitch-down not quite 20 degrees. Rolled left; sliding down about 5 - 10 degrees. Still drifting down slowly.

17:14:16 P Sunset.

17:14:39 C ... Got a horizon yet?

17:14:42 P I don't see one.

17:14:48 C We might get some stars up there.

17:14:52 P We just might.

17:14:57 C Yes. How about that? (Laughter)

17:15:01 P Now I've got a horizon down here.

17:15:02 C Where are you with respect to it?

17:15:06 P Above it.

17:15:08 C You're above it. Okay, how does the roll look?

17:15:11 P A little bit of a degree.

17:15:26 C How is the roll coming?

17:15:33 P Yaw a little to the left.

17:15:59 C How are you doing?

17:16:01 P Coming down.

17:16:21 P A little to the left of the horizon. Going straight down.

17:16:51 C 10 minutes towards the horizon. The wings are almost level, now.

17:16:56 P Roger. The nose is sliding down.

17:17:01 C You're pitched down about 35 degrees.

17:17:04 P I know it.

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17:17:06 C Dad gum!

17:17:07 P And we're at 40 in the GME, bore up.

17:17:16 P Secure your rates right there. All axes.

17:17:20 C How's that?

17:17:26 P Pitch-up, pitch-up!

17:17:28 C How's that? Yes, you've got it.

17:17:36 C Hey, you're rolling right.

17:18:04 C That's all right. You're going like heck, going up now.

17:18:07 P I'm going like heck.

17:18:08 C Yes, but don't get it - you had better start taking her down if you're getting close.

17:18:14 C Okay. You're right on. Hold it now. Those rates are pretty, you know? You're within 4 or 5 blips of it.

17:18:22 P Time me for 10 seconds, will you?

17:18:23 C Okay. Stand by.

17:18:26 C MARK.

17:18:28 P Do it over again.

17:18:30 C Stand by.

17:18:31 C MARK.

17:18:37 C Stand by. 2, 1.

17:18:41 C MARK.

HOUSTON

17:44:27 CC Gemini XI, Houston.

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17:44:29 P Go ahead.

17:44:31 CC Roger. We've been looking at your Agena since last night and there seems to be some sort of anomaly in the clock system. We don't know whether it is the clock itself, the accumulator that stores the pulses from the clock, or the T/M readout that we get down from the Agena. So we're planning, on your next pass over Carnarvon, to have you turn your Encoder OFF. We'll send up some information to the Agena and then read it out on your pass over the States and try to establish if there is any problem at all with the Agena clock. Over.

17:45:23 C Houston, Gemini XI.

17:45:25 CC Go ahead, Gemini XI.

17:45:26 C S-11 is complete.

17:45:28 CC Roger.

17:45:32 CC Did you copy that information on that Agena clock test?

17:46:47 CC Gemini XI, Houston.

17:46:50 C Go ahead.

17:46:52 CC Roger. Did you copy the information concerning this Agena clock test we're going to run over Carnarvon?

17:46:59 C Yes, we did.

17:47:00 CC Roger.

17:47:04 CC Do you have time to talk about this MAP problem now?

17:47:08 C Okay.

17:47:10 CC Roger. We have been analyzing the problem here on the ground. We'd like to send up our thoughts and get your concurrence or any comments you have.

17:47:23 C ...

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17:47:29 CC First of all, we have been able to determine down here that the Agena seems to have responded to all the commands that you sent it. Even though you have not received any MAPS, we have received the MAPS on the ground when you sent the command. Over.

17:47:47 C Okay.

17:47:56 CC When the Spacecraft had no indication of radar lock during your S-26 docking radar, the encoders were locked-on, as the L-Bands were commanded and the MAPS were received. By that I mean, even though you weren't receiving radar lock-on indications at that time, we indicated that you were locked and the L-Band commands were being executed.

17:48:21 C Okay. Now our radar and lock display was not showing they were locked-on. Nor was the digital read-out of the computer showing that we were locked-on. So our MAPS may have been getting in, but our radar was not reading correctly to us either.

17:48:39 CC What was the light at this time? Was it on or off?

17:48:45 C The light was off.

17:48:47 CC Roger.

17:48:49 C The Lock-on light was off and we received no MAP lights. And then later, we would still have Lock-on light off and we'd get a MAP when we got in real close.

17:49:02 CC On those occasions when your radar locked-on - at that time, were you getting Range and Range-Rate?

17:49:07 C No.

17:49:10 CC At any time on your original Rendezvous, when you were attempting to switch the antennas, did you notice either an improvement or degradation that led you to believe that you were not actually switching antennas?

17:49:28 C Well, everything was going just fine and then the radar azimuth and elevation wandered off about 3 degrees, indicating that the target was moving right and up and I started to go after it. I

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realized, looking out the sight, that it was not doing that, and Dick tried to switch the antennas right there and they never would switch. From that time on, which was about 40 minutes elapsed time into the Rendezvous - about an hour and five minutes total, we never have had good radar azimuth and elevation. The elevation came back in, but the azimuth never did.

- 17:50:20 CC Roger. And during this time the Range and Range-Rate was good?
- 17:50:23 C Yes. It was good, but it was doing quite a bit of wandering itself, especially Range-Rate and lock.
- 17:50:31 CC Roger. Do you feel then that the MAP light and the erroneous FDI indications are a part of the same problem?
- 17:50:42 C Gosh! We had not sent commands to the Agena prior to this. And therefore, the first time we tried to send a command to the Agena, to change the antennas, we noticed the problem. We never got a MAP light.
- 17:51:02 CC Roger.
- 17:51:21 CC Gemini XI, Houston. We're going to work with the information that you gave us now. Our first opinion is, once again, that all the commands you're sending are getting in, even though you don't seem to be able to get a MAP light onboard the Spacecraft.
- 17:51:39 C Well, now do you realize that while we're docked, we're getting MAPS just fine. It's only when we are undocked and using the radar.
- 17:51:46 CC Roger. We understand.
- 17:51:48 C Okay.
- 17:52:19 P Houston, do you read?
- 17:52:22 CC That's negative, Gemini XI. Say again.
- 17:52:25 C Roger. We're standing by to commence the Apollo Sump Tank 1800.

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17:52:30 C Roger.

17:52:44 CC Gemini XI, Houston. Are you saying that during your S-26 experiment you were unable to get the radar to lock-on? You could never get Range or Range-Rate information at that time?

17:52:57 C It locked once about - 20 feet from the vehicle and it never locked-on again after that.

17:53:04 CC Roger.

17:53:10 C And after that, sometimes we got a MAP light, but most of the time we didn't.

17:53:21 CC Roger. We don't see any real problem that's going to hurt your Tethering or any other portion of the mission right now, but we'll continue work on it down here.

17:53:34 C Okay.

CANARY ISLANDS

17:57:25 CC Gemini XI, Canaries. You need not answer. We show you GO on the ground. We will be monitoring your experiment.

17:57:33 C Roger. We're at 2 minutes and 10 seconds and we'll be pitching up to 3-1/2 degrees per second at 5 minutes.

17:57:41 CC Roger.

17:59:00 CC Gemini XI, Canaries.

17:59:03 C Go ahead, Canaries.

17:59:04 CC Okay. You want to turn on your O₂ Tank Heater?

17:59:08 C Okay.

17:59:09 CC Okay. Looks like it's dropped down a little bit. Now I'm going to hit you with a Tx here.

17:59:13 C Okay.

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17:59:36 C Canaries, Gemini XI.
17:59:37 CC Go ahead.
17:59:38 C Say hello to everybody down there for me, please.
17:59:40 CC Sure will.
17:59:42 C Thank you.
18:00:09 CC They all said to drop in and see them sometime.
18:00:11 C Boy, I'd sure like to come back.
18:00:15 C Stand by. In 10 seconds we're going to 3-1/2 degrees.
18:00:18 CC Roger.

CARNARVON

18:34:37 CC Gemini XI, Carnarvon.
18:34:39 C Go ahead, Carnarvon.
18:34:43 CC Roger. Last night we had an Agena clock jump about 4 hours and 30 minutes and we would like to try and determine whether or not the problem was, in fact, in the Agena clock itself or if it's in the telemetry system. And so what we've done is we've ginned up the Load-16 command words and we would like to have the first eight or, in fact, all 16 be executed over the States this next pass. Now, these commands are prefatory commands. They're pitch-yaw minus and pitch-yaw plus and pitch-yaw low-rate and pitch-yaw high-rate. And this will tell us whether or not, based on the time labels, weak - hard to believe the telemetry clock or blame the Spacecraft clock.
18:35:31 CC Did you copy that?
18:35:44 C Okay. Go ahead, Bill. We were just in the middle of the Apollo thing here.
18:35:47 CC Roger. Copy what I said?
18:35:48 C Yes. I copied it.

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18:35:51 CC Okay. If you want to turn the encoder off, we'll transmit the load to you.

18:35:54 C Okay. Encoder's going off.

18:35:55 CC Okay.

18:36:26 CC Gemini XI, Carnarvon.

18:36:27 C Go ahead.

18:36:29 CC Okay. We transmitted a load and we've got a Compare.

18:36:32 C And you have a what?

18:36:34 CC We have a Memory Compare. You have a good load.

18:36:36 C Okay.

18:36:37 CC Okay. The first command should execute over the States about - I think about 7 minutes after you get acquisition at Texas.

18:36:46 C Okay. Now you don't want us to turn the Agena back on or anything. Is that correct?

18:36:49 CC Stand by. I want to send SPC ENABLE.

18:37:08 CC Okay. You can turn the Encoder back ON.

18:37:15 C Okay. The Encoder's back ON. Do you want us to leave the Agena off until it passes by the States? Is that correct?

18:37:22 CC It doesn't make any difference.

18:38:30 CC Gemini XI, Carnarvon.

18:38:32 C Go ahead.

18:38:34 CC Okay. This command load we sent you, Pete, doesn't have effect at all on the Flight Plan. I think you're supposed to - let's see, ECS ON about 19 hours, isn't it?

18:38:43 C Right. We'll just go ahead with the Flight Plan then.

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18:38:46 CC Roger.

18:38:54 CC I might pass along to you, when the last commands are executed you'll end up in pitch-yaw minus and pitch-yaw low. Low rate.

18:39:03 C Roger.

18:40:56 CC 1 minute to LOS.

18:41:00 C Roger. We're just on our last end of the Apollo Sump Tank experiment. We'll have it finished up for you at the States.

18:41:06 CC Roger.

TEXAS

19:16:46 CC Gemini XI, Houston.

19:16:51 C Go ahead, Houston.

19:16:53 CC Roger. Could you please verify for us that your Camera circuit breaker is ON?

19:17:00 C Is that the Apollo Sump Tank Camera circuit breaker?

19:17:03 CC That's affirmative.

19:17:06 C Yes. It's ON.

19:17:08 CC Roger. On your pass over Carnarvon, we did not copy any current on that particular circuit.

19:17:18 C We looked at the cameras and we did all the experiments.

19:17:20 CC Roger.

19:17:22 C The circuit breaker's been on all that time. We've got a little anomaly for you.

19:17:26 CC Go ahead.

19:17:28 C Okay. We have a Number 8 Thruster that's not up to snuff. I haven't bothered to find out whether

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it's completely out or not. I suspect that it's hardly putting out anything.

- 19:17:33 CC Roger.
- 19:17:56 CC Gemini XI, Houston. In regard to this camera PIE, were you cycling your Sump Camera on and off over the Carnarvon pass? Over.
- 19:18:07 C Were we cycling it on and off?
- 19:18:09 CC That's affirmative.
- 19:18:14 C It might have only come on once or twice while we were actually over Carnarvon.
- 19:18:19 CC Roger. That's probably the problem right there.
- 19:18:25 C We did a great deal of camera cycling prior to Carnarvon and then we were in sort of a wait period there. I'm sure we turned it on once or twice over Carnarvon, though.
- 19:18:34 CC Roger. They didn't monitor you continuously, but the majority of the time they were looking, they did not see any current flow in that circuit.
- 19:18:44 C Okay. We did check the circuit breaker several times during the experiment and it never came off or anything.
- 19:18:51 CC Roger. We've got some information, if you are ready to copy, concerning the Window Wipe. Over.
- 19:19:00 C Go ahead.
- 19:19:01 CC Roger. If your time line permits during the umbilical EVA, we recommend that you use a dry rag and wipe half of the Command Pilot's window while you're changing the 16mm film pack, or as time permits, sometime in that sequence. Later, evaluate the results to determine if you want to wipe the remainder of the window later in the EVA, and if you do, do so when you get the opportunity. We'd like you to retrieve the rag for evaluations, but suggest that you attempt to stow it to decrease any possible out-gassing into the cabin. One possibility here is the waste container bags that you have in your

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- pedestal Volkswagen pouches. Over.
- 19:19:20 C Roger. We'll go ahead and do that. I estimate that 50 percent of my window dirt is on the inside of the outer pane; however, the outer pane - outside the outer pane - is covered very badly. My window is almost useless for photography.
- 19:20:18 CC Roger. How about the Pilot's side?
- 19:20:23 C It's pretty dirty, too, but it's not quite as bad as mine.
- 19:20:27 CC Roger.
- 19:20:33 C What we're trying to do here right now, Al, is catch a little nap prior to EVA Prep.
- 19:20:41 CC Sounds good. We'll hold down the conversation then.
- 19:20:45 C Okay.
- 19:20:59 CC Gemini XI, Houston.
- 19:21:00 C Go ahead.
- 19:21:02 CC One last comment here. Could we get you to turn on the Sump Camera and also the Camera circuit breaker and ... it for just about 10 seconds? We'll monitor it here on the ground and see if you have a problem or not.
- 19:21:15 C Okay. Stand by. Camera's on at this time.
- 19:21:25 CC Looks okay, Gemini XI. Apparently the problem was in the monitoring at Carnarvon. They probably weren't looking while you were operating the camera. It looks good here.
- 19:21:35 C Okay.
- 19:21:42 C Intend to power-down here for the next 40 minutes and start the EVA Prep on time.
- 19:21:47 CC Roger. And could you give us any information as far as what you did do as far as trouble-shooting the Number 8 Thruster?

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19:21:55 C During the Apollo Sump Tank flying in DIRECT, I noticed that when I got - wait a minute, I have it written down here - yaw left, I've got roll right. I think that's Number 8, isn't it?

19:22:13 CC That's affirmative.

19:22:16 C Okay. And I was getting a ... Alpha roll out of it so I suspected that it was just about out of snuff.

19:22:27 CC ...

19:22:29 C I just thought I would mention it to you.

19:22:31 CC ... Roger, Gemini XI.

19:22:49 C Another thing we did determine is that our voice tape is running. We just don't have any light.

19:22:56 CC Roger. Understand it's running, but your light isn't operational. That's good.

19:23:38 CC Gemini XI, Houston. Would you also check your O₂ pressure? Over.

19:23:44 C Okay.

19:23:49 C It's about 670. We're going to just leave it the way it is and go to sleep here. We'll pump it up when we start the EVA Prep.

19:23:55 CC Roger.

CARNARVON

20:09:33 CC Gemini XI, Carnarvon.

20:09:35 P Go ahead, Carnarvon.

20:09:37 CC Roger. Wanted to bring you up to date on this experiment we ran on the Agena. The ground indications are that the clock in the Agena did, in fact, skip 4 hours plus, so we're going to bias our loads, based on that time. And we'd like to flush out the memory now, so if you want

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to turn off the encoder, we'll send you a load
with all max time labels.

20:09:58 C Okay. Encoder's OFF.
20:10:00 CC Roger.
20:10:54 CC Gemini XI, Carnarvon.
20:10:56 C Go.
20:10:57 CC Okay. You've got a good load and we've transmitted
SPC DISABLE. You can turn the Encoder back ON.
20:11:03 C Roger. Encoder back ON.
20:11:05 CC And we're giving you a GO for 30-1.
20:11:08 P Roger. We're GO here. Be advised that we are
starting our EVA Prep.
20:11:12 CC Roger.
20:11:14 CC I've got a small PLA Block Update for you when
you're ready to copy.
20:11:20 P Okay. Wait.
20:11:35 P Okay. Ready to copy.
20:11:39 CC Okay. The weather in all three areas is good.
SEP Maneuver is required. The bank angles are
roll left 85 and roll right 95 for all three areas.
First area is 16-1: 23:43:48; 21 plus 12, 27
plus 17. Area 17-4: 26:34:12; 20 plus 36, 26
plus 43. Area 18-4: 28:09:34; 20 plus 50 and
26 plus 48.
20:12:36 P Roger. Copied.
20:12:38 CC Okay. On your EVA, your time is 24:02:09; that's
sunrise plus 10 minutes.
20:12:48 P Say it again, Bill.
20:12:50 CC That's 24:02:09.
20:12:54 P Roger.

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20:13:12 CC Gemini XI, Carnarvon.
20:13:14 P Go ahead.
20:13:16 CC On this Number 8 Thruster, when you get a chance you might try and turn circuit breaker Number 7 OFF and yaw left and see what happens. And also, you might try your Secondary Drivers if you haven't already.
20:13:27 P Okay. We will. We weren't too concerned until we were going to be reading it off of Agena. We've been pretty busy.
20:13:33 CC Roger.
20:14:25 CC Gemini XI, Carnarvon.
20:14:27 P Go ahead.
20:14:28 CC Did you go ahead and complete your fuel cell purge?
20:14:33 P No. We haven't done it yet.
20:14:35 CC Okay.

CANTON ISLAND

20:30:30 CC Gemini XI, this is Houston standing by at Canton.
20:34:36 CC Gemini XI, Houston. 1 minute and 30 seconds to LOS at Canton.
20:34:42 P Gemini XI. Roger.

GUAYMAS

20:47:59 CC Gemini XI, this is Houston standing by at Guaymas.
20:48:04 P Roger. Houston, we're progressing right along here.
20:48:11 CC Roger. Have you completed your fuel cell purge? Over.

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20:48:15 P No. We haven't done that yet. What we'd like to do is wait until about an hour before the EVA and we'll get it in then. Okay?

20:48:26 P Or would you prefer we did it right now?

20:48:31 CC Houston. Wait.

20:49:43 CC Gemini XI, Houston. That sounds like a good idea to wait until just before EVA. Over.

20:49:47 C Okay.

20:49:52 C We're on Page 4 of our Cross-Suit Check List. About half way down, if you're interested in where we are - just getting ready to unstow ELSS.

20:50:03 CC Roger. What's it like?

20:50:06 C Say again?

BERMUDA

21:02:38 CC Houston, Gemini XI.

21:02:41 CC Houston, go ahead.

21:02:53 CC Roger. I understand that our EVA time is 24:02:09. Is that correct?

21:03:01 CC Roger. Sunrise plus 10 - 24:02:09.

21:03:05 C Okay. We're way ahead of schedule here so we're going power down for a little rest.

21:03:13 CC Roger.

21:03:14 C And if you have anything, why - we've got some time off right now.

21:05:11 CC Gemini XI, Houston. 30 seconds to LOS at Bermuda.

21:05:16 P Roger.

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TEXAS

22:26:28 CC Gemini XI, Houston in Texas standing by.

22:26:33 C Okay. Houston, this is Gemini XI. We're going to purge the fuel cells at this time. We got so far ahead of the game here that we were dumping oxygen overboard while Dick was on the ELSS, so we put him back on the Ship's system again. And we've stopped at Page 7. We're going to hold up until we get to the next darkness-pass before we go any further. We're a couple of steps from being ready to go.

22:27:02 CC Houston. Roger.

22:27:06 C And we're letting the Manual heater cool off a little bit. We're running on all-down; we're only indicating at 480 down. We'll run it to 800 here in a little bit.

22:27:27 C ... Hydrogen pressure on fuel cell Number 2.

22:27:31 CC Roger.

22:27:52 C Hydrogen Number 1.

22:28:09 C Oxygen in Number 2.

22:28:11 CC Roger.

22:30:15 C ... on to Number 1.

22:30:18 CC Roger.

22:32:21 C Fuel cell purge is complete. Cross-Summary is OFF. Manual Heater is going back ON.

22:32:35 CC Houston. Roger.

22:33:12 CC Gemini XI, Houston. Cryo H₂ readout for about 30 seconds.

22:33:19 C Roger. H₂.

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ANTIGUA

22:36:07 CC Gemini XI, Houston. Over.

22:36:09 C Go ahead.

22:36:11 CC Roger. You're now on the Ship's system; you're no longer on umbilical right now. Is that correct?

22:36:16 C That's right. We put that back on Ship's system. We were just losing oxygen faster than we could afford it.

22:36:23 CC Roger.

22:36:53 C Houston, Gemini XI.

22:36:57 CC Go ahead. This is Houston. Go ahead.

22:37:02 C Roger. When we were doing that Apollo Sump Tank Camera business we referred to 10 feet-per-second out-of-plane to the south and then take it back out again 15 feet, but in doing the experiment we wandered off so I was curious as to - we actually put a little Retrograde maneuver in and a little down in, and I was wondering what our orbit is now.

22:37:36 CC This is Houston. We'll get it immediately.

22:37:43 C ...

22:37:45 CC You're in a 166.4 by 154.6, Pete.

22:37:51 C You cut out. Say it again.

22:37:55 CC You're in a 166.4 by 154.6. Over.

22:38:00 C Okay.

22:41:22 CC Gemini XI, Houston. 30 seconds to LOS at Antigua.

22:41:27 P Roger, Houston. We are going to turn the gyro around to 90 degrees here after the pass and get ready for the next revolution.

22:41:38 CC This is Houston. Roger.

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CANARY ISLANDS

22:45:54 CC Gemini XI, Canary.

22:45:56 P Hello, Canary. This is Gemini XI here. Go ahead.

22:45:58 CC Okay. We show you GO on the ground. We have nothing special for you at this time. This will be our last pass with you for this series. We'll see you in the morning. Be good.

22:46:10 P Roger. Thank you.

KANO

22:52:11 CC Gemini XI, this is Houston at Kano. Stand by.

22:52:13 C Roger, Houston. We just gyrocompassed to TDA south and we are standing by to pick up EVA again.

22:52:22 CC Roger.

22:52:35 C Say again, this is Gemini XI.

22:53:39 CC This is Houston. We didn't call you. Over.

22:53:43 P Somebody else came up on UHF, John.

22:53:47 CC Roger.

22:53:53 CC This is Houston. Go.

22:54:57 C This is Gemini XI, Houston. We didn't call.

22:57:47 CC Houston, Gemini XI. 1 minute.

22:57:49 CC Gemini XI, Houston. 1 minute to LOS.

22:57:57 C ... Houston.

22:57:58 C Houston, what's the next station that you pick us up on?

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TANANARIVE

23:03:54 CC Gemini XI, this is Houston at Tananarive and standing by.

23:03:59 P Roger, Houston.

23:04:02 CC Good morning.

23:04:05 P Tananarive, Gemini XI.

23:04:07 CC Gemini XI, this is Houston. Read you 5 by 5. How is it?

23:04:11 P Can read you the same; have a question for you. We figure that at 23:36:09 we'll roll right 80 degrees and go Inertial on the Agena, and that should leave us at the proper angle at sunrise plus 4 minutes. Will you check that?

23:04:41 CC Roger. Understand. Roll right 80 degrees at 36:09 and we'll check that out for you.

23:04:48 P Thank you.

23:10:48 CC Gemini XI, Houston. Over.

23:10:51 C Go ahead, Houston.

23:10:54 CC Roger. I'd like you to put your Roll Jet switch to PITCH. Over.

23:11:00 CC So you'll have full roll authority.

23:11:03 C Okay.

23:11:06 CC And you should - we figure that ought to be okay.

23:11:14 C That's not the problem, John. The problem is Dick will be in a hard suit ... at that time and he can't control the Agena ON and OFF.

23:11:25 CC Roger. Understand that.

23:11:32 C So what we'd like to do is roll right 80 degrees at 23:36:09. That should do the same thing, shouldn't it.

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23:11:35 CC Roger. That's affirmative.
23:11:42 C Okay. That's what we are going to do.
23:11:50 CC Gemini XI, we're 1 minute to LOS at Tananarive.
23:12:03 C Roger. Standing by.
23:12:19 C This is Gemini XI. How do you read us on VOX?
Over.
23:12:23 CC Read you loud and clear, Pete.
23:12:26 P All clear. How do you read me, John?
23:12:30 CC Got a loud garble, Dick.
23:12:33 P Roger. How do you read me now?
23:12:37 CC About the same. We can understand you.
23:12:40 P Okay.

CARNARVON

23:21:17 CC Gemini XI, Carnarvon.
23:21:19 C Go ahead, Carnarvon. Gemini XI here.
23:21:22 CC Roger. We'd like you to send RESET TIMER RESET
Command 060 to the Agena.
23:21:28 C Roger. We're doing that at this time.
23:21:29 CC Okay.
23:21:33 C Roger. It's sent. We got a MAP.
23:21:40 CC We'd like to give you a GO for depressing the cabin.
23:21:43 C Okay. We're GO up here. We have about five steps
to complete which we will do after we go Inertial.
23:21:45 CC Roger.

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CANTON ISLAND

23:40:34 CC Gemini XI, this is Houston at Canton. Standing by.
23:41:14 CC Gemini XI, this is Houston at Canton. Standing by.
23:41:23 C Roger, Houston.
23:44:05 P Can you see it now? Have you got it off?
23:44:07 C Going to hold that lever on, so get it ON.
23:44:10 P Hold still for awhile.
23:44:22 C The right helmet is stuck.
23:44:36 P Okay. There's one side gone.
23:44:38 C Okay.
23:44:40 C If you get the other side, you've got it made.

HAWAII

23:48:50 CC Gemini XI, Hawaii. Standing by.
23:48:52 C Roger, Hawaii.
23:48:59 C We're all ready to go.
23:49:02 CC Okay.
23:49:03 C We're going to have to run this ECS heater all the time this pass because the ELSS keeps ... We have to run it all the time to keep the pressure up.
23:49:14 CC Okay. We copy that.
23:49:21 CC We show your pressure here good on the ground and your quantity up to about 80 percent.
23:49:26 C Roger.
23:49:27 CC And your current looks good.

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23:49:30 C Okay.
23:53:24 P Almost didn't.
23:53:29 CC Gemini XI, Hawaii. 1 minute to LOS. All systems look good on the ground. You are GO for your stateside EVA. Good luck to Dick.

CALIFORNIA

23:55:40 CC Gemini XI, this is Houston at California. Standing by.
23:56:11 CC Gemini XI, this is Houston at California. Standing by. Over.
23:56:15 C Roger, Houston. This is Gemini XI ...
23:56:23 CC Roger.

GUAYMAS

24:00:32 C Houston, we're over on VOX. How do you read us?
24:00:35 CC Read you loud and clear.
24:00:37 C Roger. You're the same.
24:00:42 C We are just standing by to open the hatch.
24:01:09 C Now we are just passing San Diego, just south of San Diego.
24:01:15 CC That's right.
24:01:24 C Dick is standing up.
24:01:25 P Can we open the hatch?
24:01:28 C Roger. Going to have to open that just a ... Want to try that one more time over there.
24:01:33 P Okay.

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24:02:00 C Get it.
24:02:01 P Almost.
24:02:02 C Yes. You did. Good show!
24:02:05 C Open the hatch.
24:02:07 P Okay. Hatch is coming open.
24:02:19 C Now listen, this mirror is in the way.
24:02:22 P Wait a minute!
24:02:25 C Hold the hatch down.
24:02:32 CC Roger. Do that!
24:02:34 C In the locked position.
24:02:35 CC Make sure you don't overrun your recorder.
24:02:36 C Open it slowly.
24:02:42 P Is that all right?
24:02:44 C All right. Go ahead.
24:02:46 C Get it?
24:02:47 P Hatch is open.
24:02:50 P It's a beautiful day!
24:02:55 C ... in the cockpit.
24:02:58 P (Laughter)
24:03:02 C Easy.
24:03:05 C Here come the garbage bags ...
24:03:09 P Okay.
24:03:10 C It's yours.

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24:03:13 P Where is it?
24:03:15 C Right up in front of you.
24:03:17 C ... out there and give it a pitch.
24:03:24 C Here is another garbage bag.
24:03:25 P Okay.
24:03:29 C Hey, hey! You're standing on the MDIU. That's a break. Get your feet off of it!
24:03:35 C It's coming out.
24:03:40 C It's also coming over on your side. I will -
24:03:47 C Make sure I hang onto you.
24:03:49 P Roger.
24:03:52 C Okay. I got you.
24:03:54 P Verify. Verification of ...
24:03:59 C I've got your other foot.
24:04:02 P ...
24:04:04 C Okay.
24:04:07 P Looks pretty clean back there. S-9 is right here.
24:04:10 C All right.
24:04:15 P Going out a little bit.
24:04:17 C Okay.
24:04:18 P Just a little.
24:04:19 C Okay.
24:04:27 C Take your time.
24:04:28 P Okay.
24:04:48 P Still hot.

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24:04:49 C Where you going?
24:04:50 P Trying to get high enough ...
24:04:52 C Won't come in?
24:04:53 P No.
24:04:55 C Are you sure?
24:04:56 P Yes. Here it comes.
24:04:57 C Okay.
24:04:59 C Got it tethered?
24:05:00 P Going down just a little.
24:05:11 P Okay.
24:05:14 C You got the S-9?
24:05:15 P No.
24:05:16 C It's way over there in front of you.
24:05:21 C Now it's behind you.
24:05:23 P ...
24:05:29 C It's out there in front of you.
24:05:31 P All right now. If I let go, you grab the other line.
24:05:39 C The seat is GO.
24:05:42 C I got the S-9. ...
24:05:45 P Okay.
24:05:47 C All right. Have you got something to hold on to?
24:05:49 P Yes.
24:05:50 C Okay. You hold on to it while I --
24:05:51 P All right.

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24:05:52 C -- You're on your own.

24:05:53 P Okay.

24:05:56 C Now for me to get the tether.

24:06:01 P Now I see why it takes a long time.

24:06:05 C ...

24:06:12 P Okay. Just a little and I'll have it tethered here.

24:06:24 P The S-9 is tethered to me and it's untethered from you. Here are your tethers.

24:06:34 C I'm holding it. Pull it in any time. Throw it out and let go of it.

24:06:39 C Okay.

24:06:41 P Are you going to hold my leg again?

24:06:43 C No. Wait a minute. Just a second.

24:06:49 P It's going down between my legs and in my way. ...

24:07:04 C All right. Now let me deploy this ... I'm going to hang onto you by the D-16 tether. I can't get that other thing.

24:07:20 P Okay.

24:07:21 C All right. Now what are you doing?

24:07:23 P I'm going to slip the panel in.

24:07:24 C Okay. I've got hold of you.

24:07:29 P Okay.

24:07:31 C Yes. Okay. Now the question is, what's next?

24:08:01 P Well. We'll ... to the tether, I guess.

24:08:04 C Now the EV camera cover off.

24:08:12 C Sequence 02.

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24:08:13 P Now let me hang on to you.
24:08:14 P I've got to rest here a minute, though.
24:08:15 C Okay.
24:08:16 P And I'm ...
24:08:20 P How much tether have you got left?
24:08:22 C Oh, I'm hanging on to you right now. You want me to hang on to you?
24:08:24 P No. How much tether do you have?
24:08:28 C Tether do I have out?
24:08:30 P Yes. How much do I need?
24:08:31 C I'm hanging on to you right now. Tight. Don't have any yet.
24:08:35 P Well, let's go get that tether. Let me have some tether out.
24:08:38 C Oh. Okay. Just a minute - I'll let you go.
24:08:41 P Hold on about 3.7.
24:08:46 P ... suit right now.
24:08:48 C I've got about 6 feet of tether out now.
24:08:51 C Yes. Looks like it will be enough.
24:08:53 P Okay.
24:09:07 C Make that your back foot here.
24:09:10 C Not any more. You're on your own.
24:09:13 C I see your foot in front of the window.
24:09:17 P Go ahead and turn the camera on.
24:09:19 C Shoot it.
24:09:21 P Missed it. Pull me down.

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24:09:23 C Okay.

24:09:24 C Keep on. You're coming right back.

24:09:26 P Easy!

24:09:27 C All right. I just gave you a little tug.

24:09:28 P Easy. I can't see where I'm going.

24:09:31 C All right. You're going in back of the adapter there.

24:09:33 P Pull me back a little more.

24:09:37 C How are you doing?

24:09:39 P Pull me up.

24:09:42 P Okay.

24:09:45 P Okay. Let's try that again.

24:09:48 C Okay. Let me know when you are going to go.

24:09:53 P Let me have some.

24:09:56 C You have it.

24:09:58 C Unless you're hung on something out there.

24:10:01 C Got it! Good show!

24:10:05 P Okay.

24:10:09 C Both cameras are running.

24:10:12 C How are you doing?

24:10:13 P All right here.

24:10:14 C What?

24:10:15 P I'm here, I guess.

24:10:17 C Sure are. Ride 'em, cowboy!

24:10:21 C Say, why don't you sit down and take a rest?

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24:10:30 C How are you doing?

24:10:31 P Tired, Pete.

24:10:32 C All right. Just rest. You've got plenty of time. You've only been out 9 minutes.

24:10:39 P I'm going to turn off both cameras. ... Okay. That Camera is OFF and that Camera is OFF. Pitch slow a little bit.

24:10:51 C Take your time.

24:11:01 C Hey! You ought to see him, Houston. He's riding it like a cowboy!

24:11:07 CC Houston, Roger.

24:11:10 P Hey, Pete! The voice recorder's not on. Recorder's ON now.

24:11:14 C We're 9 minutes, 50 seconds into the EVA.

24:11:18 C ... Nose breather. How you doing?

24:11:22 P I'm breathing hard.

24:11:23 C Yes. Well, just relax.

24:11:34 C Little more work involved. Right?

24:11:35 P Yes.

24:11:38 C Looking awfully silly sitting out there on front of the Spacecraft. I'll tell you that.

24:11:46 P Looks cute.

24:11:50 P Okay.

24:12:02 C ... picked this hatch angle because the sun's shining right on my head.

24:12:12 C Take it easy!

24:12:21 P ...

24:12:37 C How are you doing?

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24:12:39 P I'm breathing awfully hard. I think I need a rest.

24:12:45 C ...

24:12:46 CC Gemini XI, Houston.

24:12:51 C Hey, Dick.

24:12:52 P Yes?

24:12:53 C Take a rest.

24:12:54 P Okay.

24:12:56 C You got that all right.

24:12:57 P ...

24:12:58 C You're way ahead of the game.

24:13:03 C Go ahead slowly.

24:13:10 CC Gemini XI, Houston.

24:13:11 C Go ahead, Houston.

24:13:13 CC Roger. Can you go off VOX? Over. We can't get through to you.

24:13:16 C Okay.

24:13:22 C Wait a moment and go off VOX.

24:13:25 C Say again, Houston.

24:13:28 CC Roger. We'd appreciate it if you'd stay off VOX so we can get through to you. Over.

24:13:33 C Okay. Dick is breathing rapidly. He's resting up on the front now.

24:13:37 CC Roger. He keeps the VOX cutting all the time.

24:14:23 C He's got the tether on there and he's just sitting up there resting. He's breathing pretty hard and he's about to get it all tightened down and crawl on the docking part of ...

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24:14:35 CC Roger.

24:14:48 CC Gemini XI, Houston. Turn on your Manual heater. Over.

24:14:55 C Okay. Manual Heater is ON.

24:14:57 CC Roger.

24:16:45 CC Gemini XI, Houston. A minute and 30 seconds until LOS at Antigua.

24:16:52 C Roger, Houston. I've got him back in the cockpit and he's resting. We've got the tether hooked up.

24:17:58 CC Gemini XI, Houston. Did you get the Docking mirror up? Over.

24:18:01 C No. We decided to skip that one.

24:18:05 CC Roger.

ASCENSION

24:23:40 CC Gemini XI, this is Houston at Ascension, standing by.

24:23:51 P Houston, we're just resting and changing the film.

24:23:55 CC Roger.

24:26:18 CC Gemini XI, this is Houston. How's everything going?

24:26:22 C We're just resting. We're getting ready to do D-16 in a minute. We're taking a 5-minute rest here. We can rest another 3 minutes.

24:26:30 CC Roger. That's a good idea.

24:26:46 CC Gemini XI, this is Houston. Could you check your O₂ pressure?

24:26:52 C Yes. It's 625. The ECS - that heater's been on ever since you said to put it on.

24:31:27 CC Gemini XI, this is Houston. We want to turn the

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Manual Heater OFF. Over.

24:32:19 CC Over.

TANANARIVE

24:40:01 CC Gemini XI, this is Houston over at Tananarive.

24:40:18 CC Gemini XI, Houston at Tananarive. Over.

24:40:25 C Hello, Houston. Gemini XI here.

24:40:28 CC Roger. This is Houston. I'd like to put your O₂ heat to AUTO. Over.

24:40:33 C Yes. Listen, I just brought Dick back in. We are repressing the cabin right now. He got so hot and sweaty, he couldn't see.

24:40:44 CC Roger.

24:40:46 C So we're back inside now and we're about 1-1/2 down in pressure and he's resting.

24:40:53 CC Roger.

24:41:00 C And I have the heater at MANUAL at the moment.

24:41:01 CC Houston. Roger.

24:41:17 CC Gemini XI, Houston. Over.

24:46:22 C Go ahead, Houston.

24:46:23 CC Roger. Is your heater on AUTO yet? Over.

24:46:26 C Yes. I've got the heater on AUTO and we're repressing with the ELSS.

24:46:34 CC Roger. I know how it is when you get to where you can't see. You have to close the lid.

24:46:50 C I believe you're right, John.

24:46:51 CC Gemini XI, Houston. 1 minute to LOS at Tananarive.

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CARNARVON

24:56:17 CC Gemini XI, Carnarvon.

24:56:19 C Go ahead, Carnarvon.

24:56:22 CC Roger. We're standing by here. It looks like you've got the cabin repressured.

24:56:26 C Roger. We just untangled all the junk.

24:56:29 CC Roger.

24:56:36 C Okay. Let me recap for everybody. We stayed out about 44 minutes there, and Dick got so much sweat in his right eye that he couldn't see any more out of his right eye. Therefore, I didn't want him to get any hotter doing any more work back there with the possibility of not being able to see out of the other one. So I called him in and we retrieved the S-9, and we hooked up the tether on to the Gemini from the Agena and we quit there. We retrieved the outside EVA film and the inside EVA film and that's where we stand right now. We're just resting and he's getting the vision back in his eye, and we're cleaning up the Spacecraft preparatory for a garbage dump later.

24:57:33 CC Roger. What did you think about the systems' performance?

24:57:36 C Say again?

24:57:37 CC What did you think about the performance of the systems?

24:57:41 C Say again, Carnarvon.

24:57:43 CC I say, what did you think about the performance of the systems?

24:57:46 C Well, the Spacecraft systems are fine. I'll let Dick tell you what he thought about the ELSS.

24:57:55 P The ELSS itself was okay. I was on MEDIUM FLOW until after I got into the tether operation where I went to HIGH FLOW and actually was pretty good,

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but there was so much sweat rolling down my face
I had to stop ... for awhile.

24:58:16 CC Roger. We got that.
24:58:38 CC How's the eye doing now, Dick?
24:58:43 P It's okay now. It's just normal sweat.
24:58:57 C I think the biggest problem that we encountered
with the sweat is that even though he rested for
5 or 6 minutes, it wouldn't evaporate and he had
no way of getting it out of his eye.
25:04:10 CC We're coming up on LOS, Gemini XI.
25:04:12 C Gemini XI, Roger.
25:04:16 C We're still wrestling with the umbilical in here.
25:04:19 CC Roger.

HAWAII

25:21:57 C Houston, this is Gemini XI. You're coming through
very poorly.
25:22:00 CC Gemini XI, this is Hawaii.
25:22:02 C Hello, Hawaii. Read you loud and clear now.
25:22:04 CC Okay. I don't know who was calling you.
25:23:02 CC Say again, Hawaii.
25:23:05 CC Will you check your BIO MED Instrumentation circuit
breaker?
25:23:09 C Okay.
25:23:11 C It was - it was OFF. We must have hit it OFF.
25:23:15 CC Okay. Thank you.
25:23:29 C Say, we'll probably dump the garbage over the
States. We have most of it packed away.

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25:23:36 CC Okay. Fine. You're going to have to boost up that O₂ Tank pressure a little bit.

25:23:40 C It's on it's way up now.

25:23:41 CC Okay.

25:23:43 CC Your Quantity looks good. Secondary, if the bottles are okay.

25:23:48 C Roger.

25:24:44 CC Gemini XI, Hawaii.

25:24:46 C Go ahead.

25:24:47 CC There is no big hurry on jettisoning all that equipment. Kind of take your time and relax. Any time will do.

25:24:54 C Yes. We're in fairly good order here. We have - as a matter of fact, if you'd like a copy, we'll tell you what we're going to jettison.

25:25:03 CC Go ahead.

25:25:05 C Okay. We have both the ELSS straps; both Y connectors; one 30-foot umbilical; one pair of debris cutters; EVA long camera cables; EVA camera mount; two Apollo Sump Tank covers; wrist mirror; all lanyards. We also jettisoned the bags that we planned to jettison that the EVA hoses were still ... and we dumped some general garbage at the first hatch opening.

25:26:01 CC Okay. Fine.

25:26:13 CC How much weight was all that general garbage?

25:26:15 C It was two food bags with garbage in them - no, I guess it was four food bags.

25:26:28 CC Okay. We copied that.

25:26:30 C Okay. That was about it.

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25:27:31 CC ...
25:29:02 CC 1 minute to LOS. Standing by.
25:29:05 C Roger. Do we have permission to go ahead and de-
pressurize over the States?
25:29:10 CC What? You're GO from here.
25:29:12 C Okay.

CALIFORNIA

25:31:01 CC Gemini XI, this is Houston at California. Over.
25:31:03 CC Gemini XI, Houston at California. Over.
25:31:06 C Hold it. Go ahead, Houston. Gemini XI here.
25:31:10 CC All right. Just standing by.
25:31:14 C Also, when you get ready to depress, we're going
to dump this garbage.
25:31:23 CC Houston. Roger.
25:31:39 CC Gemini XI, this is Houston. You plan to jettison
the ELSS too, don't you? Over.
25:31:44 C That's affirmative.

GUAYMAS

25:34:09 C Houston, Gemini XI is depressing at this time.
25:34:13 CC This is Houston. Roger.
25:36:35 C Houston, the cabin is depressed and the hatch
is open.
25:36:39 C Houston. Roger.

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TEXAS

25:38:44 CC Gemini XI, Houston. Is your Manual Heater ON? Over.

25:38:59 CC Gemini XI, Houston. Do you want to check your Manual heat? It looks like you're venting O₂. Over.

25:39:05 C It was ON. We'll turn it OFF. We had it right up to the top and we just closed the hatch, and we are just dogging it down right now.

25:39:23 CC Houston. Roger.

25:39:53 C Houston, we are repressing at this time.

25:39:56 CC Houston. Roger.

25:40:23 C Going back to the Manual heater.

25:44:53 CC ...

25:45:23 C Hello, Houston, Gemini XI.

25:45:34 CC Houston. Go ahead.

25:45:36 C Roger. We've got the cabin repressurized.

25:45:42 CC Roger. You can go ahead and power-down and we'll do S-11 at the normal time. Over.

25:45:48 C Roger.

25:45:55 C It's going to take us a little while, John, to regroup here. We still have some summaries to do and you want us to power-down about what time?

25:46:04 CC Roger. At your discretion. Over. No hurry.

25:46:05 C Okay.

25:46:10 CC Did you have any luck wiping the window? Over.

25:46:13 C We didn't try.

25:46:14 CC Roger.

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ANTIGUA

25:52:28 CC Gemini XI, Houston. A minute and a half to LOS at Antigua.
25:52:33 C Gemini XI, Roger.

ROSE KNOT VICTOR

25:57:52 CC Gemini XI, RKV. We have nothing for you. We are standing by.
25:57:57 C Okay.
26:01:06 CC Gemini XI, RKV. We'll have LOS shortly.
26:01:32 C RKV, Gemini XI. What's your latitude and longitude?
26:01:39 CC 19 south, 39 west.
26:01:45 C Gemini XI, Roger.
26:01:47 C Roger.

ASCENSION

26:02:34 CC Gemini XI, this is Houston standing by at Ascension. Over.
26:02:39 C Roger. How about a nodal update?
26:02:42 CC We're getting it right this minute.
26:02:44 C Thank you.
26:06:59 CC Gemini XI, Houston. 1 minute to LOS at Ascension.
26:07:03 C Roger.
26:07:20 C Houston, Gemini XI.
26:07:22 CC Go ahead.

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26:07:23 C We're going to eat lunch at 28:00:00.
26:07:31 CC Say again. Over.
26:07:34 C I said we're going to eat lunch and pick up at
28:00:00.
26:07:39 CC Roger.

TANANARIVE

26:16:44 CC Gemini XI, this is Houston at Tananarive. Over.
26:16:48 C Gemini XI, go ahead.
26:16:50 CC Roger. We have this Nodal Update. Over.
26:16:53 C Go ahead.
26:16:56 CC Time, 26 plus 41 plus 34: Revolution 17; 127.1
degrees east; 1 hour, 21 minutes, right ascension.
Over.
26:17:24 C Roger. Say again Rev number, please.
26:17:28 CC Rev 17. Over.
26:17:31 C Roger. 17.
26:22:54 CC Gemini XI, Houston. We've got 1 minute to LOS at
Tananarive.
26:22:56 C Roger.

CARNARVON

26:32:59 CC Gemini XI, Carnarvon. We're standing by.
26:33:02 P Carnarvon, XI. Roger.
26:33:21 P Carnarvon, our status at this time is: we have
restowed and we're gaining - just starting to eat -
and we expect to pick up our Flight Plan at 38 plus
00 plus 00.

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26:33:35 CC Roger.

26:33:43 P What you need is one, Pete.

26:33:46 C I'm with you. How about a couple of them?

26:34:35 CC Gemini XI, Carnarvon.

26:34:37 C Go.

26:34:38 CC The pilot's sternal EKG sensor - we're not getting a very good reading down here. Could you ask Dick to press the sensor against his body?

26:34:47 C Which one?

26:34:48 CC His sternal EKG.

26:34:58 C How's it doing now?

26:35:03 CC Not any better.

26:35:07 CC Coming in now.

26:35:15 CC Okay. It looks good now.

26:35:39 C Now that we dumped the garbage, this place looks like the grand ballroom up here.

26:35:50 CC You're going to have a lot of fun tomorrow.

26:35:53 C Yes.

26:35:57 P We have a long day today to go yet.

26:36:10 CC I don't know if you and I can survive a 23-minute pass.

26:36:16 P We'll see you when?

26:36:17 CC I'm going home and study.

26:36:51 CC 30 seconds to LOS.

26:36:53 C Roger. Do we have you next trip?

26:36:56 CC Negative. We'll see you tomorrow morning.

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26:36:58 C Okay. Thank you.
26:37:01 CC Roger.

HAWAII

26:58:39 CC Gemini XI, Hawaii.
26:58:41 P Go ahead, Hawaii.
26:58:43 CC Roger. I've got some questions I'd like to ask you about what you jettisoned.
26:58:48 P Yes. Roger. Go.
26:58:50 CC Okay. What about the sextant brackets?
26:58:53 P Yes. They're still aboard.
26:58:56 CC Okay. And the umbilical stowage rack?
26:58:59 P That's still aboard.
26:59:01 CC And the umbilical stowage bag for scraps?
26:59:04 P They're gone.
26:59:06 CC Okay.
26:59:27 CC Gemini XI, this is Hawaii. We have a little test we'd like you to try with regard to the T or TCA Number 8 Thruster, and Houston will talk to you about it over California. They want to know whether or not - what your feelings are - just whether or not you'd like to go along with this test.
26:59:47 C Sure.
26:59:48 CC Okay.
27:00:48 CC Are you playing around with the circuit breaker?
27:00:51 C Yes. That's affirm.
27:00:52 CC Okay.

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27:00:56 C Sounds like it's firing.
27:00:58 CC All right. It did. Looks okay down here now.
27:01:02 C Say again?
27:01:04 CC Looks okay now. And it did fire when you said it fired.
27:01:11 C Yes. I try to listen to both 7 and 8 - one at a time - but usually ... they sound the same, don't they?
27:01:22 CC Looks like the problem has rectified itself.
27:01:26 C Well, it may still be a little soft. That I can't tell. I've got the Agena ON.
27:04:18 CC Gemini XI, this is Hawaii. Will you go to COMMAND on your T/M switch?
27:04:21 C Roger. COMMAND.
27:04:27 CC I'm going to transmit a Tx.
27:04:28 C Roger.
27:04:41 CC Okay. We have 1 minute to LOS. All systems are GO on the ground.
27:04:47 C Gemini XI.

CALIFORNIA

27:06:48 CC Gemini XI, this is Houston at California. Over.
27:06:52 C This is Gemini XI. Go.
27:06:54 CC Roger. Are you ready to copy this? TCA Number 8 Test Procedure consists of 10 steps. Over.
27:07:07 C Be with you in a second, John.
27:07:11 CC Okay. And we want to do it over Texas so they can get the data in REAL-TIME telemetry and look at it.

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27:07:18 C Okay. Let's go.

27:07:23 CC The first step is a Spacecraft Sense Control with Agena ACS OFF at three commands, 300, 350 and 400. And then, Number 2 is direct load, three attitude drivers to primary ACME Control, Circuit Breakers 1 and 2 ON. Number 4 is yaw left to observe the roll rate effect, and if the roll rate exists - that's Number 5 - open and close Circuit Breaker Number 8 and see if the roll rate effect remains. Number 6, if you have a roll rate, open Circuit Breaker Number 7. Number 7, yaw left for 5 seconds. Number 8, if no thrust, switch to SECONDARY DRIVERS and yaw again. Number 9, if degraded thrust or still no thrust with SECONDARY DRIVERS, pulse in yaw 20 times. And Number 10 is close Circuit Breaker Number 7 and yaw left again. Do you want me to say again all after Number 1?

27:09:28 C No. I think we are with you, John.

27:09:30 CC Okay.

27:09:35 C Okay. You want us to do this over Texas so you can look at it. Is that right?

27:09:39 CC Yes Sir, and I'll tell you when you get to Texas.

27:09:43 C Okay.

TEXAS

27:11:47 CC Gemini XI, Houston. You're in Texas now.

27:11:51 C Okay. ACS going off at this time.

27:11:55 CC Roger.

27:12:06 C Standing by to yaw left on my Mark.

27:12:10 C MARK. Roll right.

27:12:22 CC Roger.

27:12:47 C Okay. Number 8 yawed left. And we rolled right.

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27:12:53 P Roger. We rolled to the right.

27:12:56 CC Roger.

27:13:09 C We've got a soft thruster, John.

27:14:19 CC Are you on Step Number 6 now?

27:14:29 C We already did that, John. I just did that and Number 8 Thruster doesn't work. It appears to be a little softer than Number 7.

27:14:36 CC ...

27:15:34 C We've got them all closed and we're going to yaw left again.

27:15:38 CC Roger.

27:16:15 CC Did you get the same thing when you tried it the last time?

27:16:19 C Yes. We got the same thing, John. It's just that Number 8 is soft.

27:16:23 CC Roger. The SECONDARY DRIVERS didn't do it.

27:16:35 C Okay. We're going to SECONDARY.

27:17:05 CC Roger. Did you go to SECONDARY after the OAMS Fire switch was ON? Over.

27:17:09 C Roger. We just went to SECONDARY with OAMS Fire switch ON and we got the same result.

27:17:19 CC Roger.

27:18:23 CC Gemini XI, Houston. ACS's back ON now? Over.

27:18:27 C Roger. ACS is back ON. We're gyrocompassing TDA aft FCI.

27:18:32 CC Roger.

27:19:58 C Houston, XI.

27:20:00 CC Yes Sir. Houston, over. Houston, go ahead.

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Gemini XI, Houston. Over.

27:22:04 C Go ahead.
27:22:06 CC Roger. You called. Over.
27:22:10 C No. But one thing that's come up here in the last hour or so - we noticed switching through our Propellant Gage, our Prop Gage, the temperature side seems to be intermittent. It seems to have an open in it, and almost any one of the selections, it will jump up and down and go to zero - go to low-scale-off and come back and then read the temperature correctly.

ANTIGUA

27:24:58 CC Gemini XI, Houston. Could you get a source pressure and a prop quantity? Over.
27:25:09 C Roger. The first pressure is 1720 pounds - temperature is 59, and the PQI reads about 41 percent.
27:25:29 CC This is Houston. Roger.
27:25:32 C Did you copy my last on the PQI temperature - I mean on the Prop Gage temperature?
27:25:40 CC That's affirmative. Over.
27:25:42 C Okay.

ROSE KNOT VICTOR

27:31:30 CC Gemini XI, RKV. We're standing by. We have nothing for you.
27:31:34 C Gemini XI. Roger.
27:38:30 CC Gemini XI, RKV. We'll have LOS in about a minute.
27:39:18 CC Gemini XI, Houston at Ascension, standing by.
27:41:24 C Roger.

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TANANARIVE

27:52:21 CC Gemini XI, this is Houston at Tananarive, standing by.

27:52:26 C Houston, Gemini XI. Do you hear - how do we read?

27:52:29 CC Read you loud and clear.

27:52:31 C Okay. We had wing ... here off to my left - large object tumbling at about one revolution per second. We flew - we had him in sight - I'd say fairly close to us - I don't know - it could depend on how big he is and I guess it could have been anything from our ELSS to something else. We took some pictures of it.

27:52:59 CC Roger.

COASTAL SENTRY QUEBEC

28:15:43 CC Gemini XI, CSQ.

28:15:57 C Hello, CSQ. Gemini XI here.

28:15:59 CC Roger. How are you today?

28:16:01 C We are running our H₂ Manual heater to 670. Would you confirm that 670 psi on our gage?

28:16:10 CC That is affirmative. That's 670 on-board.

28:16:14 C Okay. We've had it on for about 4 minutes ...

28:16:20 CC Roger. We'll keep an eye on it down here, too.

28:16:23 C Okay. We purged the fuel cells at 28:00:00.

28:16:27 CC Roger. I'll give you a Tx at this time.

28:16:30 C Thank you.

28:16:37 CC Okay. I have a small Flight Plan Update for you when you're ready to copy.

28:16:44 C Ready to copy.

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28:16:46 CC Okay. Hawaii, at 28:33:04 you'll get a PLA.

28:16:53 C Copy.

28:16:57 CC S-11. At 29:16:54, Sequence 01, Load Able. S-11 with platform powered-up.

28:17:13 C Roger. S-11 with platform powered-up. Go to Platform at this time.

28:17:20 CC Okay. After the S-11, purge Section 01, then 02, and then power-down. Complete the purge at 31 plus 30.

28:17:41 C That is S-11.

28:17:43 CC At 29:49:19 Sequence 03; Load Able. Last item. At CSQ at 31:27:00, we want a Crew Status Report. This is the end of the Flight Plan Update. Over.

28:18:09 C Roger. Just give me the time on the purge again.

28:18:14 CC Okay. That'll be after the S-11 - the first S-11.

28:18:22 C Okay. Actually they're together there. Then came Sequence 01 and Sequence 03.

28:18:31 CC Say again.

28:18:33 C I say they're together in time. It'll be after the last S-11.

28:18:43 CC That's affirmative.

28:19:35 C CSQ, Gemini XI.

28:19:38 CC Roger. Go ahead.

28:19:40 C We have another little novelty for you to think about. Every time we turn on the Cryo Quantity to the O₂ or H₂ position, we get a very dull down-cycle tone in the earphone set. Maybe something new and keep on with that ... system.

28:19:59 CC Roger. Will advise in a minute.

28:20:21 CC Gemini XI, CSQ.

28:20:24 C Go ahead.

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28:20:25 CC Okay. Would you have the Pilot press on his sternal EKG sensor?
28:20:30 C ...
28:20:57 CC Okay. We are getting a good reading on that sensor now.
28:21:00 C Okay.
28:22:18 CC Gemini XI, CSQ. About a minute to LOS and we'll be standing by.
28:22:22 C Okay.

HAWAII

28:34:00 CC Gemini XI, Hawaii.
28:34:02 C Go ahead, Hawaii.
28:34:03 CC Roger. All set to check here on the ground. I have a PLA Update for you.
28:34:07 C Well, I've been hanging on to this Manual H₂ Heater for the last 20 minutes and we're still on to getting it up. Just a second and we'll get the copy.
28:34:18 C Okay.
28:34:40 CC Okay. Area 19-4: 29:45:13; 20 plus 47, 26 plus 52. Bank angle for all areas: roll left 85, roll right 95. Area 20-3: 31:05:24; 20 plus 06, 26 plus 12. Area 21-3: 32:40:38; 20 plus 22, 26 plus 35. Area 22-3: 34:15:29; 20 plus 43, 27 plus 02. Sep Maneuver for all areas and marginal weather in 22-3.
28:36:19 C This is Gemini XI. Copied.
28:36:21 CC Roger.
28:36:42 C Hawaii, Gemini XI.
28:36:43 CC Go ahead.
28:36:44 C They want us to leave the H₂ Quantity Read switch ON all night. Is that right?

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28:36:52 CC Now, let me check that.

28:37:03 CC That's affirmative, Gemini XI.

28:37:05 C Okay.

28:37:45 CC While your Hydrogen Tank pressure is rising very slowly.

28:37:48 C Yes. We've been over here. It's been taking us 25 minutes to get it up there.

28:37:52 CC Not but 2 more days, then you can quit.

28:37:55 C Thanks.

28:38:56 CC Gemini XI, Hawaii.

28:38:58 C Go ahead.

28:38:59 CC Our temperature on the L-Band is getting a little low. Will you send 071 for us please?

28:39:04 C Roger. Going 071 L-BAND ON.

28:39:08 CC And we have. Thank you.

28:39:11 C Roger.

28:40:22 C Gemini XI, Hawaii. Go back to AUTO.

28:40:23 CC The pressure rise is normal for this point.

28:40:26 C Whoopee! (Laughter) You know, I dragged you three-quarters of the way around the world to do that!

28:40:53 CC Gemini XI, Hawaii. Evidently the pressure rise is normal for this portion of the flight, on that same question.

28:41:00 C Okay.

28:41:04 CC We have 1 minute to LOS and we're standing by.

28:41:08 C Okay. We're on the Flight Plan; we got the update copy. We're standing by to do the S-11, Sequences 01 and 03.

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28:41:19 CC Okay. We'll see you next time around.
28:41:21 C Roger.

GUAYMAS

28:45:18 CC Gemini XI, Houston at Guaymas. Over.
28:45:21 C Hello, Houston. Gemini XI here.
28:45:25 CC Roger. This is Houston standing by.
28:45:29 C Okay.
28:47:28 C Houston, Gemini XI.
28:47:30 CC This is Houston. Go.
28:47:32 C Roger. This Update time on the Sequence 03 for S-11. Is that sunrise - 28:49:19?
28:47:50 CC It's sunrise minus 4 minutes. Over.
28:47:53 C Okay. Right. Thank you.
28:48:07 CC Gemini XI, Houston. Over.
28:48:09 C Go ahead.
28:48:11 CC Is this tone you get on the O₂H₂ Cryo continuous or does it last for about 30 seconds when you first switch to it? Over.
28:48:21 C It's continuous.
28:48:23 CC Roger.
28:48:25 C There's something here; I never heard it before. About a couple hours ago we turned it on and off and stepping in the sound cycle tones, and they are very dull in the ear. They may have been there, but I just can't tell you.
28:48:50 CC Do you think you could sleep with it ON? This is Houston. Over.

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28:48:53 C Oh, yes.
28:48:56 CC Roger.
28:50:42 CC Gemini XI, Houston. 10 seconds to LOS at Guaymas.
28:50:46 C Roger.

ROSE KNOT VICTOR

29:06:38 C RKV, Gemini XI. Over.
29:06:40 CC Gemini XI, go.
29:06:44 C Go ...
29:06:51 CC Roger. Go ahead.
29:06:53 C Roger. Nine event.
29:06:58 CC Right.
29:07:00 C And the RED ... looks like .11.
29:07:08 CC Roger. Copy .11.
29:07:12 C That's as close as I can make it.
29:07:14 CC Roger.
29:14:05 CC Gemini XI, RKV. We'll have LOS in about 1 minute.
You look good from here.
29:14:11 C Roger. We're just standing by to do S-11.
29:14:14 CC Roger.

TANANARIVE

29:28:07 CC Gemini XI, Houston at Tananarive. Standing by.
29:28:27 CC Gemini XI, Houston. Standing by at Tananarive.

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29:29:29 C Hello there, Houston CAP COM. Gemini XI here.
How do you read?

29:29:35 CC Roger, Gemini XI. This is Houston standing by at
Tananarive.

29:29:41 C Roger. We're in the middle of the S-11 ...

29:29:47 CC Roger.

29:35:22 CC Gemini XI, Houston. 1 minute until LOS at Tanana-
rive.

29:35:27 C Roger, Houston.

COASTAL SENTRY QUEBEC

29:51:36 CC Gemini XI, CSQ CAP COM. Standing by.

29:51:40 C Roger, CSQ.

29:51:46 CC Roger. I'm sending you a Tx.

29:53:27 C CSQ, Gemini XI.

29:53:31 CC Go, Gemini XI.

29:53:32 C CSQ, do they want us to power-down a platform?

29:53:37 CC I believe so. Stand by 1 minute.

29:53:40 C Okay.

29:54:13 CC Gemini XI, this is CSQ. Stand by on that power-
down.

29:54:17 C Thank you. Standing by.

29:55:29 CC Gemini XI, CSQ.

29:55:32 C Go ahead.

29:55:33 CC Okay. Did you purge after that first S-11?

29:55:37 C No. We ran right through that into the other one.

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We'll have to purge now.

29:55:41 CC Okay. Do your purging now and then you can power-down after the purge.
29:55:44 P Okay.
29:56:02 P We're going to purge them now.
29:56:05 CC Roger. We're copying that.
29:56:17 P Complete on Section 1.
29:56:20 CC Roger.
29:56:58 C The oxygen is on Section 2.
29:57:03 CC Say again, Gemini XI.
29:57:04 C The oxygen is on Section 2.
29:57:07 CC Roger.

HAWAII

30:08:27 CC Gemini XI, Hawaii.
30:08:29 C Gemini XI, go.
30:08:30 CC Okay. I'd like to activate the S-4 around for a package.
30:08:35 C Roger. Standing by.
30:08:36 CC You're standing by? Okay. About 20 seconds.
30:08:41 C Roger.
30:08:55 CC 5, 4, 3, 2, 1,
30:09:00 CC MARK.
30:09:02 C Roger. It's activated.
30:09:11 CC Okay. Would you place your Quantity Read switch

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to O₂, please?

30:09:30 CC Okay. Back to H₂.

30:09:44 CC I have a PLA Update for you.

30:09:49 P Stand by.

30:10:09 P Okay.

30:10:11 P Go ahead.

30:10:13 CC Okay. Area: 23-Delta; 35:14:19; 20 plus 11, 25 plus 12. Bank angle for all areas: roll left 85, roll right 95. 24-Delta: 36:48:57; 19 plus 57, 24 plus 53. 25-2: 38:24:37; 19 plus 41, 25 plus 07. 26-2: 39:59:57; 19 plus 45, 25 plus 21. 27-Echo: 41:31:00; 34 plus 48, 38 plus 20. 28-1: 43:13:35; 34 plus 01, 37 plus 47. 29-1: 45:01:44; 20 plus 16, 26 plus 06. 30-1: 46:37:05; 20 plus 19, 26 plus 11. Sep Maneuver for all areas and weather is good in all areas. And I have a note for two of these areas. For Area 27-Echo and 28-1. Fire Rockets 1, 2 and 3 only at 0 degrees pitch attitude. Stand by for a minute.

30:13:45 CC Retro-ball reading for 27-Echo is -23 degrees; for 28-1, it's 27 degrees.

30:14:08 C I'm not sure we quite understand this Retro-ball angle.

30:14:14 CC We'll check on it for you. Stand by.

30:15:08 CC We've got them thinking.

30:15:12 C Very good.

30:15:25 C The guy that made them up probably went home on the last shift.

30:15:29 CC I tried to call him before the pass and he was out of the office.

30:16:01 CC Gemini XI, Hawaii.

30:16:03 C Go ahead.

30:16:04 CC Okay. They want to boost up that H₂ Tank pressure again.

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30:16:09 C Okay.
30:17:10 CC Gemini XI, this is Hawaii. We're going to lose you in a little bit. Maybe I'll have an answer for you on those ball angles for you over RKV.
30:17:17 C Okay. Thank you.
30:17:24 P We'll run this gage up to where it was the last time.
30:17:27 CC Okay. We copy that.
30:17:30 P Yes. We want Flight to extend these LOS.

ROSE KNOT VICTOR

30:42:43 CC Gemini XI, RKV. Would you turn the Encoder OFF please, so we can load a VM for it?
30:42:50 P Roger. Encoder going OFF.
30:43:00 CC Okay. I have that information for you on the ball angles, if one of you is ready to copy.
30:43:08 P Ready to copy.
30:43:10 CC Okay. Ball angles for those two areas are based on different true anomalies than what were discussed with you. For Area 27-E, it's based on a true anomaly of 208 degrees; for Area 28-1, it's based on a true anomaly of 212 degrees. If you're going to do an OAMS Retro, it will be based on a true anomaly of 190 degrees and the other pertinent information associated with an OAMS Retro will be updated to you at that time. Do you copy?
30:43:52 P We copy and understand.
30:43:54 CC Roger. Very good. Also, we have a brief two-item Flight Plan Update for you.
30:44:02 P Go ahead.
30:44:04 CC Okay. The first item is for Node: Time, 34:12:39; it will be Rev 22; will be 11.7 degrees east, 01:12 right ascension. Second item is at Antigua at a time of 40:15:30. You'll have a Crew Status Report. Over.
30:44:42 P Gemini XI copies.
30:44:45 CC Roger. That's all we have for you at this time.

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We have a Delta-VM in and you can turn your Encoder back ON.

30:44:53	P	Encoder is ON.
30:44:54	CC	Roger.
30:45:11	C	RKV, Gemini XI.
30:45:13	CC	Roger. Gemini XI.
30:45:15	C	Roger. Would you check with the Surgeon down there? I'd like to take a foxtrot.
30:45:24	CC	Stand by.
30:45:40	CC	Roger. We concur with the foxtrot.
30:45:43	C	Okay.
30:45:45	C	Computer at this time.
30:45:47	CC	Roger.
30:49:43	CC	Gemini XI. We have an update for you. Height-Adjust.
30:49:49	P	Roger. Wait.
30:50:04	P	We're ready to copy.
30:50:06	CC	Okay. We'll probably have LOS during this. GET B: 40:29:59; Delta-V, 912.3; Delta-TD, 01 plus 50; Core 25, 01923; thrusters, TPS; Maneuver, Forward Posigrade. Over.

TANANARIVE

31:07:00	CC	Gemini XI. Houston.
31:07:04	P	Gemini XI. Go ahead.
31:07:07	CC	You gained two numbers on me. Listen, Dick, are you on two B-Pumps yet?
31:07:14	P	No.
31:07:15	CC	Let's go to two B-Pumps now.
31:07:18	P	Okay.
31:07:22	P	We're on two B-Pumps.
31:07:24	CC	Okay. We're standing by.

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31:07:30 P They 've got you doing something.
31:07:32 CC Yes. It's about time I did something.
31:07:35 P Say again?
31:07:36 CC About time I did something.
31:07:38 P (Laughter)
31:07:43 CC I have handball in 1/2 hour.
31:07:46 P Roger.

COASTAL SENTRY QUEBEC

31:27:31 CC Gemini XI, CSQ CAP COM.
31:27:35 C Go ahead, CSQ. Gemini XI here.
31:27:37 CC Okay. You can turn your H₂ Heater OFF now.
31:27:41 C Go from AUTO to OFF?
31:27:43 CC That's affirm.
31:27:47 C Roger, Charlie.
31:27:48 CC Okay. We want to send you a Tx.
31:27:50 CC And we are ready for your Crew Status Report.
31:27:55 C Roger. Coming down.
31:28:01 C Let's see, for the Command Pilot: lunch, ate Meal 2-Charlie and Command Pilot ate non-solid. For dinner, eating Meal 3-Charlie. We are still in the process of eating that. I would suspect the Command Pilot ate 2-Charlie for lunch and two-thirds ... and the Pilot is in the process of eating Meal 3-Charlie right now - everything. The gun count reads 1040 and it's adequately input.
31:28:57 CC Roger. Copy all that.

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31:29:00 CC Did you get all that Agena Burn Update over RKV?

31:29:05 C Roger. We'll read it back to you just as soon as we get it. Right?

31:29:17 P Roger. Copy the translation 40:29:55. The on-board 2.3 duration, 01 plus 50; Core 25, 09123; Forward Posigrade. Over.

31:29:37 CC That's a PPS burn.

31:29:39 P Roger. You got it all.

31:29:40 CC Okay. We would like you and the Pilot, just before your sleep period, to hold both of the EKG External Sternal Sensors about 5 minutes, and hold them firmly depressed to the body. We figure that they may stick down there, and if we leave them loose overnight the adhesive may dry up.

31:30:06 C Roger. Understand.

31:30:12 CC Would you turn your Encoder OFF? We want to reset the clock and turn the L-Band OFF.

31:30:19 P Roger. The Encoder is OFF.

31:31:08 CC Okay. We'll check your VM words at RKV and if they're good you can turn your Encoder back ON.

31:31:13 C Roger. Encoder's ON.

31:33:41 CC Gemini XI, CSQ.

31:33:43 C Go.

31:33:45 CC Okay. We have about a minute before LOS and we'll be standing by. Have a good night's sleep.

31:33:51 C Roger. Thank you. We need it.

CANARY ISLANDS

38:53:26 CC Gemini XI, Canary CAP COM.

38:53:45 CC Gemini XI, Canary.

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38:53:46 P Here.

38:54:00 CC Gemini XI, Canary CAP COM.

38:54:03 CC Warming up.

38:54:07 CC Hello there, Gemini XI. How are you feeling?

38:54:09 P Just fine. We've been up for about 20 minutes and we're starting to configure for High-Altitude.

38:54:15 CC Roger. We're allowed to wake you up about 30 minutes early this morning to let you have enough time to get ready.

38:54:21 P Okay.

38:54:23 CC Okay. I'd like you to place your H₂ Heater to the AUTO position if you would.

38:54:27 P Roger. H₂ to AUTO.

38:54:30 CC Okay. And at your convenience would you send RESET TIMER RESET to the Agena 060?

38:54:38 P Roger. We're doing that now.

38:54:41 P And I think we'd like to go ahead and start the power-up early, if that's all right.

38:54:47 CC Roger. Go ahead and fire it up.

38:54:53 CC Like to remind you that before your next pass is up to go to TDA forward.

38:55:00 P Roger. We're going to start ...

38:55:06 CC That's about all we have for this time. I guess the next time we see you we'll be pumping you up a little bit.

38:55:13 C Roger.

38:55:43 C Canaries, Gemini XI. We'll go ahead and purge the fuel cells shortly.

38:55:47 CC Okay.

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38:56:37 CC Gemini XI, Canary.

38:56:38 C Go ahead.

38:56:39 CC Would you confirm that S-9 is stowed properly, please?

38:56:43 C Roger. It's been on the floor all night.

38:56:46 CC Okay.

38:56:49 C Facing aft.

38:56:50 CC Roger.

38:56:51 CC On the floor, facing aft.

38:57:38 CC Gemini XI, Canaries. Would you place CRYO switch to O₂, please?

38:57:43 C Roger, to O₂ and commencing fuel cell purge, Section 1, Hydrogen.

38:58:04 C Okay. Going to Section 2, Hydrogen.

38:58:09 CC Roger.

38:58:31 C You ought to be able to see us go by down there this morning.

38:58:35 CC I don't know if anybody's outside right now.

38:58:40 P Now we're purging the oxygen on Number 1.

38:58:42 CC Roger.

38:59:07 C Gemini XI to Houston. I sure don't hold much hope for the pictures taken out of the left window. My window is extremely dirty.

38:59:15 CC Smokey will do.

38:59:27 CC Gemini XI, would you reconfirm your gyrocompassing, please?

38:59:30 C Roger. We're going TDA south and then we'll be going TDA forward.

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38:59:37 CC Okay.

38:59:56 CC Gemini XI, we're just about at LOS. We'll see you our next pass.

39:00:00 C Roger.

KANO

39:01:51 CC Gemini XI, Houston.

39:02:03 C Go ahead, Houston.

39:02:04 CC We've only got about 30 seconds on this pass. I can start giving you some of your high-altitude, reentry data if you're ready to copy.

39:02:15 P Wait.

39:02:23 C Hey, Houston, we've got something for you! We'll pick you up later.

39:02:28 CC Roger. We're running pretty short anyway.

39:02:31 C Okay. We have started sending commands to the Agena and we only get MAP on the 2nd time we send the same command.

39:02:40 CC Roger. Is it performing as per your command?

39:02:46 C Say again?

39:02:47 CC Is it performing as you command it, even though you only get a MAP the second time?

39:02:52 C Well, I'm not sure of that. We just discovered it when we started.

HOUSTON

40:16:00 CC Gemini XI, Houston

40:16:06 C Go, Houston.

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40:16:14 C Go ahead, Houston.

40:16:17 CC Roger. You're garbling a little bit. Could you turn your Encoder switch OFF?

40:16:21 C Roger. It's OFF.

40:16:22 CC Roger. How does the Agena look now? When you faded out over the last station, you had a problem with it. Over.

40:16:30 C Well, every once in awhile we don't get a MAP and we have to send the command a couple of times, and then we'll finally get a MAP. We're in FC2 right now, gyrocompassing BEF.

40:16:42 CC Roger. Your - for your information, when you were over the Canaries, we saw you send two commands each time for GEO RATE and PITCH Horizon Sensors. We got MAPS for both of the commands, both times, and the function was executed on your first command. Over.

40:17:03 C Okay. Apparently we're not getting a MAP light back. That's all.

40:17:08 CC Roger. At least right now, it looks like all the commands are getting through even though you don't get the MAP light. Have you taken a look as far as the status display panel lights or approach lights?

40:17:21 C No, we didn't try those. How about our GET time hack?

40:17:26 CC Roger. I'll give you a time hack at GET 40:18:00, and that's about 25 seconds from now. Time will be 40:18:00.

40:17:55 CC 5, 4, 3, 2, 1.

40:18:00 CC MARK.

40:18:01 CC That's 40:18:00

40:18:04 C Roger. We're right with you. Time of burn is still 40 plus 29 plus 59, 1 plus 59. Is that correct?

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40:18:12 CC That is correct. As you approach the Canary Islands we will verify, on the ground, that you actually are in Flight Control Mode 7 and monitor all your commands, but you presently have a GO for the burn, and unless you hear from us, you'll execute the burn on time. Over.

40:18:33 C Okay.

40:18:46 P Houston, Gemini XI. ...

40:18:55 C Houston, Gemini XI.

40:18:56 CC Go ahead, Gemini XI.

40:18:57 C Can we have the encoder back?

40:18:59 CC That's affirm. Turn the Encoder ON at this time and we would like to send approach lights ON, and we'll monitor you from the ground.

40:19:07 C Okay.

40:19:08 CC Are you ready to copy your OAMS Reentry Inertial platform update?

40:19:13 C Go ahead.

40:19:14 CC GET of 5 degrees: 40:32:39. GET 275 degrees: 41:51:04. For Area 27-Echo: GET B 41:22:39; Delta-V, 240; burn time, 5 plus 00; Address 25, 92400; ball reading, UP 3. For Area 28-1: GET B 43:05:00; Delta-V, 240; burn time, 5 plus 00; Address 25, 92400; ball reading, UP 1. In both of these, OAMS reentries are roll left 55 degrees. Over.

40:20:54 C Okay. I didn't get the 5-degrees ball time, please, and the first thing after that.

40:21:00 CC Roger. The GET of 5 degrees on the ball is 40:32:39. The GET of 275 degrees on the ball is 41:51:04. Did you copy that?

40:21:21 C Got it. Thank you.

40:21:24 CC Roger. Another possible problem that could be

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causing these MAP - intermittent MAPS, is a - your L-Band beacon seems to be cooling off fairly rapidly at night. Suggest you send 071. This will turn it ON, allow it to warm up and perhaps we can get some better MAPS.

40:21:47 C Okay.

40:21:54 CC Gemini XI, Houston. Also, you have a GO for 451.

40:21:58 C Roger.

40:22:14 CC Gemini XI, Houston. Your approach lights look good from here. You're clear to turn them OFF.

40:22:20 C Affirm.

40:22:32 CC Yes, Sir ...

40:22:36 C Say again?

40:22:57 CC Gemini XI, Houston. Could you give us an abbreviated Crew Status Report?

40:23:00 C Roger. We haven't eaten this morning.

40:23:05 CC Roger. Thank you.

40:23:07 C We slept about 5 hours.

40:23:11 CC Roger.

40:23:12 C And I can't read the water gun. It's locked up.

40:23:33 CC Have a good ride up there.

40:23:34 C Thank you.

40:25:03 P 2 minutes to 57.

40:25:08 P Count 1 minute.

40:25:10 P Count 2 minutes.

40:25:15 P Here comes the sun.

40:25:20 C ...

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40:25:21 P You're not going to be able to see it. It's just like John said.

40:25:38 P You have over 4 minutes to the burn. The sun will be up another 16 degrees. It will be right over the top.

40:25:50 P 5 minutes to burn.

40:26:04 P 1 minute.

40:26:53 P 10 seconds.

40:26:58 P Stand by.

40:26:59 P 5, 4, 3, 2, 1.

40:27:04 P MARK.

40:27:05 P 5 - 471.

40:27:08 C 471.

40:27:09 P 571.

40:27:10 C 571 MAP.

40:27:12 P 201.

40:27:16 C 201 MAP.

40:27:20 P 371.

40:27:22 C 371 MAP.

40:27:24 P 271.

40:27:27 C 271 MAP.

40:27:28 P Okay. Standing by for 59.

40:27:29 C What do I stand by for ...

40:27:31 P What?

40:27:32 C What are ...

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40:27:34

P 041.

40:27:44

P I'm going to go ahead and get the Start Comp 1.

CANARY ISLANDS

40:28:21 CC Gemini XI, Canaries.

40:28:23 C Go ahead.

40:28:24 CC Okay. We show your vehicle is GO. We're standing by for record data on VM ENABLE.

40:28:30 C Roger.

40:29:37 CC Gemini XI, you're GO for the burn.

40:30:09 C Roger.

40:31:37 C The ... is solid and it's really holding.

40:31:43 CC Say again, Gemini XI.

40:31:44 C Looking good, looking good.

40:31:45 CC Roger. Roger.

40:31:46 C Stand by for cut-off.

40:31:52 CC Cut-off.

40:31:55 C Whoop-pee-do! 500 ride.

40:31:59 CC Looks real good from here. Looks real good from here, Gemini XI.

40:32:03 C Roger, Bob. We used 31 feet per second of main propulsion left.

40:32:07 CC Would you say again, please?

40:32:08 C We have 41 seconds of main propulsion left.

40:32:12 CC Roger.

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40:32:16 C Negative. 31.
40:32:18 CC Roger. 31.
40:32:51 C Okay. 80 reads 918.
40:32:57 CC Say again. Say again, Gemini XI.
40:32:59 C I said 80 at 918 and the 81 reads 81.
40:33:08 CC That was 80 reads 918 and 81 reads 81?
40:33:12 C Affirmative. And 82 reads 51. Over.
40:33:15 CC Roger. 82, 51.
40:33:48 C Canaries, Gemini XI.
40:33:49 CC Go ahead, Gemini XI.
40:33:50 CC Stand by.
40:33:51 C Roger. I just got the platform to free. I got it
to free at 40:33:30, and would you have them com-
pute the ball angles for that time, please, Sir?
40:34:03 CC Will do.
40:34:15 CC They're working on it now, Gemini XI.
40:34:18 C Okay.
40:34:34 CC Gemini XI, this is Canaries. Here at our LOS.
They'll get that to you as soon as they can.
40:34:38 C Okay.

CARNARVON

41:02:32 C Carnarvon, Gemini XI.
41:02:34 CC Hello up there.
41:02:36 C How long have you had us?

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41:02:37 CC We've just had you about a minute here.

41:02:40 C I'll tell you, it's GO up here and the world's round.

41:02:43 CC You have a good view?

41:02:45 C I mean it's spectacular!

41:02:47 P Bill, it's really fantastic! You wouldn't believe it!

41:02:50 C I tried to yippee out the left window and - -

41:02:55 P ...

41:02:57 C - - ... under our nose and you're out the right window.

41:02:59 CC Get some pictures out the right window, not the left.

41:03:02 C Actually, we're taking them all out the right window except the 75mm 16 camera.

41:03:08 CC Roger.

41:03:09 CC Okay. I have your ball reading for you when you're ready to copy.

41:03:15 C Okay. Wait.

41:03:22 C Okay. Ready to copy.

41:03:23 CC Okay. Will you turn the Encoder OFF and we'll go ahead and get our Agena tape dump.

41:03:27 C Okay.

41:03:31 CC Okay. For Area 27-Easy, your ball reading is UP 7. Your Area 28-1, your ball reading is UP 4.

41:03:50 C Okay. We copy.

41:04:15 CC You released the ball 8 degrees past perigee.

41:04:18 C Okay. 8 degrees. Roger.

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41:04:36 C I'll tell you, you can't believe it!

41:04:42 C Just out of my left window I can see all the way from - -

41:04:45 P ...

41:04:47 C - - the end, around the top of the world all the way around about 150 degrees, including the horizon all the way around.

41:05:05 CC Okay. We're going to up-link you with a VM word for your Retro burn.

41:05:09 C Okay.

41:05:13 C What's our orbit?

41:05:16 CC 156 by 742.

41:05:22 CC That's 156 by 742.

41:05:29 C Have a period for us?

41:05:31 CC Stand by.

41:05:43 CC 101.5.

41:05:46 CC 101.5.

41:05:51 C 101.5. Thank you.

41:05:57 CC You got a good VM load.

41:06:00 C Okay.

41:06:08 CC Okay. I have your GET of apogee.

41:06:11 C Roger.

41:06:13 CC 41 plus 21 plus 58.

41:06:18 C First apogee, 41:21:58.

41:06:20 CC Roger.

41:06:24 C Have you got a Retro time for us?

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41:06:28 CC Stand by.

41:06:36 CC The one you have is good, Pete.

41:06:45 C The one that I have is good? What one is that?

41:06:47 CC You should have 27-Easy.

41:06:52 C I mean the Retro burn fire with the PPS.

41:06:58 CC Okay. Stand by.

41:07:19 CC Gemini XI, Carnarvon.

41:07:20 C Go ahead.

41:07:22 CC Okay. Your time for that burn is 40:29:59.

41:07:27 CC Negative. That's the first time.

41:07:32 CC I'm sorry, Pete. Stand by.

41:08:05 CC I'll have the time for you in a second, Pete.

41:08:06 C Okay.

41:08:24 CC That time is 43:52:38.

41:08:32 C 43:52:38 Retro burn?

41:08:36 CC That's affirm.

41:09:22 C And for your information, our dosimeter reads .3 rads per hour up here.

41:09:28 CC Roger.

41:09:31 C And number of amps, 11.

41:09:36 CC Roger.

41:09:55 CC Gemini XI, Carnarvon.

41:09:59 CC I have a Flight Plan Update for you, when you're ready to copy.

41:11:01 C Okay. Wait.

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41:11:07 C Go ahead.

41:11:09 CC Okay. The first is a node: Time, 40:13:31; Rev 26, 80.6 degrees west; 1 hour, 4 minutes, right ascension.

41:11:31 CC 41:21:57; apogee Rev 26.

41:11:42 CC S-11, 41:29:58; Sequence Number 04; the Mode is A.

41:11:53 C Copy.

41:12:09 CC We're about 10 minutes to LOS.

41:12:11 C 10 minutes. Roger.

41:13:07 CC We've completed the dump tape. You can go ahead and put the Encoder ON.

41:13:11 C Roger. The Encoder is ON.

41:13:33 CC Why don't you talk to us about the view?

41:13:36 C Okay. I have to go on VOX while we're doing it because we're very busy. We're looking straight down over Australia now. We have a terminator at our right window. We have the whole southern part of the world out one window. Utterly fantastic!

41:13:58 P Yes. Now here comes the terminator behind me, Pete. Moving like a streak.

41:14:05 C Okay. Give me a hand with the rest of this stuff.

41:14:07 P Okay.

41:14:13 C Now, back off VOX for a second.

41:14:51 C We're setting up for S-11 now.

41:14:54 CC Roger.

41:15:06 C Okay. Get us 2nd Apogee time.

41:15:09 CC Stand by.

41:15:10 C Okay.

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41:16:28 CC Gemini XI, Carnarvon.
41:16:31 C Go.
41:16:32 CC Okay. Second apogee will be 43:03:28.
41:17:51 C You copy, Carnarvon?
41:17:52 CC That's negative; we've lost T/M on you. Say again?
41:18:06 C Hello, Carnarvon.
41:18:29 C Hello, Carnarvon.
41:18:32 CC Gemini XI, Carnarvon.
41:18:50 CC Gemini XI, Carnarvon.
41:19:03 CC Gemini XI, Carnarvon.
41:19:05 C Go ahead.
41:19:06 CC How do you read?
41:19:08 C Say again?
41:19:09 CC How do you read me?
41:19:10 C You're very weak. I think maybe our antenna's underneath us and blocking you.
41:19:15 CC Roger. Did you get that second apogee time?
41:19:18 C 43:03:06. Is that correct?
41:19:22 CC It's 43:03:28.
41:21:17 C How do you read, Carnarvon?
41:21:19 CC Read you loud and clear. How me?
41:21:21 C You're very weak.
41:21:30 CC The T/M has been dropping in and out for about the last 2 minutes.
41:21:32 C Yes. We have a low angle plus, I guess, our range

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is pretty far. We're almost on the other end of Australia. We should be coming up on apogee in 18 seconds.

41:21:58 C MARK. Apogee.

41:22:08 CC Roger.

CANTON

41:26:30 CC Gemini XI, Houston at Canton standing by for a 15-minute pass.

41:26:35 C Hello there, Houston! This is Gemini XI.

41:26:39 CC Sound great up there, Pete!

41:26:41 C What's that?

41:26:42 CC Sound like you're really way up there!

41:26:49 C Say again?

41:30:06 CC Gemini XI, Houston. Over.

41:30:08 C Go ahead.

41:30:10 CC Roger. Could you see New Zealand down south there?

41:30:13 C Could we see what?

41:30:15 CC New Zealand.

41:30:19 C Say again?

41:30:21 CC Roger. I just asked, could you see New Zealand down south?

41:30:27 C No. I don't think we did, John. We were passing the terminator.

41:30:34 CC Roger.

41:30:51 C We're still in daylight up here and the sun is just a couple 3 degrees from setting - may be

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another few minutes. And the terminator passed us a long time ago.

41:31:07 CC Roger.
41:31:55 CC All you need is a bigger fuel tank. Right?
41:41:07 CC Gemini XI, Houston. 30 seconds to LOS.
41:41:10 C Roger. Houston, we're presently with the S-11.
41:41:14 CC Roger.

TEXAS

41:58:07 CC Gemini XI, Houston at Texas. Over.
41:58:12 C Gemini XI, go ahead.
41:58:14 CC Roger. Standing by.
41:58:16 C Okay.
42:04:10 CC Gemini XI, Houston. Over.
42:04:12 C Go ahead, Houston.
42:04:13 CC Roger. We have a Dock Burn Update for you. Over.
42:04:17 C Roger. Ready to copy.
42:04:48 C We're ready to copy.
42:04:59 C Ready to copy, Houston.
42:05:02 CC Roger. Purpose is Height-Adjust. GET B 43 plus 52 plus 39; Delta-V, 911.8; Delta-TB, 01 plus 48; Address 25, 99118; PPS Burn TDA aft, Retrograde.
42:05:49 CC The VM word you have is good.
42:05:53 C Roger. Understand the VM load is good.
42:06:00 CC That's affirmative. If you turn your Encoder OFF, we'll look at it one more time.

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42:06:05 C Okay.

42:06:30 CC Gemini XI, Houston. The word is good. You can turn your Encoder ON. Over.

42:06:34 C Roger.

42:10:10 CC Gemini XI, Houston. 1 minute and 30 seconds to LOS at Bermuda.

CANARY ISLANDS

42:15:01 CC Gemini XI, Canaries.

42:15:03 C Go ahead, Canaries.

42:15:05 CC Roger. We'd like to dump the Agena, if you'd turn your Encoder OFF.

42:15:08 C Roger.

42:20:48 CC Gemini XI, Canary.

42:20:49 C Go ahead.

42:20:51 CC Okay. You can turn your Encoder back ON.

42:20:52 C Roger.

42:20:55 CC I guess you're on your back-up now.

42:20:58 C Roger.

42:23:32 CC Hello, Gemini XI, this is Canaries. You're just about our LOS. You're still good. We'll see you your next time around.

42:23:36 C Roger.

KANO

42:24:17 CC Gemini XI, Houston at Kano, standing by.

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42:24:22 C Roger. This is Gemini XI. We're taking pictures.
42:24:35 CC 1 minute to LOS. You're 330 miles.
42:24:39 C Roger. Who is this? Canary?
42:24:43 CC This is Houston at Kano.
42:24:45 C Okay. Roger.

TANANARIVE

42:36:15 CC Gemini XI, Houston at Tananarive. Over.
42:36:18 C Hello there, Houston, Gemini XI. Read you loud and clear.
42:36:22 CC Roger. You're at 435 miles now.
42:36:27 C Roger. We're just passing the coast of Africa now.
42:38:31 P Still with us, Houston?
42:38:35 CC This is Houston. Go ahead.
42:38:38 C I was wondering if you read us ...
42:38:45 CC This is Houston. Say again. Over.
42:38:47 C Roger. I was just checking to see if you still read us.
42:38:51 CC Roger. You're at 485 miles now.
42:38:54 C Roger.
42:47:06 P Carnarvon, Gemini XI. Do you read?
42:47:09 CC Roger. Go ahead.
42:47:12 CC This is Tananarive. Over.
42:47:15 P Telemetry --
42:47:23 CC Gemini XI, Houston. Over.

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42:47:27 P - - Say something, Houston.
42:47:28 CC Roger. Didn't read you last. Over.
42:47:38 CC Gemini XI, this is Houston. You have 30 seconds until LOS and then you're at 625 miles.

CARNARVON

42:50:35 C Carnarvon, Gemini XI.
42:50:37 CC Gemini XI, Carnarvon.
42:50:39 C How do you read me? Have me in sight?
42:50:42 CC Roger. We still haven't locked up on you, Pete.
42:50:45 C Say again?
42:50:46 CC I say we haven't locked up solid your telemetry yet.
42:50:49 C Okay.
42:51:38 C Carnarvon, Gemini XI.
42:51:40 CC Go ahead.
42:51:43 CC Go ahead, Gemini XI.
42:53:36 CC Gemini XI, Carnarvon.
42:53:38 C Loud and clear. How me?
42:53:40 CC Loud and clear. You want to turn your Encoder OFF and we'll start the dump.
42:53:43 C Okay.
42:53:48 C We've rolled around to where we're slightly pitched down, but we rolled into the orbital plane now, preparatory to setting up the Agena.
42:54:01 CC Roger.

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42:54:05 C We have you in sight down there, loud and clear.

42:54:11 CC How's the weather?

42:54:13 C Just out ... we got some clouds, but that's about it.

42:54:22 CC Stand by. I'm going to transmit you a Tx.

42:54:24 C Okay.

42:55:13 CC Gemini XI, Carnarvon.

42:55:15 C Go ahead.

42:55:16 CC I'll give GET time back at 42:56:00. About 40 seconds.

42:55:22 C Okay.

42:55:56 CC Stand by.

42:55:57 CC 3, 2, 1.

42:56:00 CC MARK.

42:56:02 P Roger. We're right with you.

42:56:03 CC Roger.

42:56:05 P And 2nd GET, 42:03:06. Is that correct?

42:56:10 CC That was 28.

42:56:16 P What was 28?

42:56:18 CC The seconds.

42:56:21 P 43:03:28?

42:56:24 CC That's affirm.

42:56:25 P Thank you.

42:56:35 P And the Retro burn time is till 43:52:39?

42:56:41 CC Roger.

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42:59:01 C Carnarvon, can we have the encoder back?
42:59:05 CC Stand by.
42:59:14 CC Okay. You've got it back.
42:59:15 C Okay.
42:59:17 CC Stand by. Gemini XI.
42:59:20 C Stand by.
42:59:27 C Encoder's OFF yet?
42:59:32 C Bill, let me have it, we need it. Will you please?
42:59:35 CC Okay. It's all yours.
42:59:37 C Okay. Thank you much.
43:02:19 P Carnarvon, Gemini XI.
43:02:21 CC Go ahead, Gemini XI.
43:02:23 P Be bringing the Agena up in 1 minute.
43:02:25 CC Roger.
43:03:42 P Carnarvon, we should be in SEF, gyrocompassing at
this time, BEF-SEF to the Spacecraft.
43:03:51 CC Roger. Looks good.
43:08:12 CC Gemini XI, Carnarvon.
43:08:14 C Go ahead.
43:08:15 CC Could you give us a PQI readout?
43:08:17 C Roger. PQI looks like about 35 percent.
43:08:22 CC Roger.
43:08:27 C We were as normal as it could be.
43:10:31 CC 1 minute to LOS.

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43:10:33 C How much?
43:10:35 CC 1 minute.
43:10:36 C Okay. See you next pass.
43:10:39 CC Roger.

CANTON

43:16:49 CC Gemini XI, Houston at Canton standing by.
43:16:52 C Roger, Houston. Gemini XI here. Everything seems to be going okay. Stand by for Retrograde.
43:17:01 CC Roger. 653 miles now, coming down.
43:17:06 C Say again?
43:17:09 CC 650 miles now, coming down.
43:17:12 C Roger.
43:17:21 P Canton, it really is round up here!
43:17:27 CC That's them all right. We figure you've got the 1000 kilometer time-to-climb.
43:17:34 P It didn't take long, did it?
43:18:01 P Houston, radiation revised is .2 rads per hour and we have 11 events. Over.
43:18:10 CC Roger. Say again events. Over.
43:18:13 P Gemini XI. Gemini XI.
43:18:15 CC Roger.
43:18:18 CC Sounds like it's safer up there than a chest x-ray.
43:18:22 P That's affirmative.
43:19:41 P Nothing like actual day though. Right?

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43:19:53 CC Gemini XI, this is Houston. Do you have any comments on the view, the colors and everything you can get to?

43:20:00 C I tell you one thing, it really is blue. That water really stands out and everything looks blue. Obviously the curvature of the earth stands out a lot. A lot of cloud coverage over the ocean. The ocean area, Africa, India and Australia were clear, however.

43:21:22 CC Houston. Roger.

43:21:24 C Looking straight down, you can still see just as clearly down as before. There's no loss of color and the details are still extremely good, even at that altitude.

43:21:32 CC Roger.

43:21:38 C Houston, Gemini XI.

43:21:40 CC Houston. Go.

43:21:43 C Roger. We've gotten a little behind after first ... and see if we can catch up.

43:21:55 CC Houston. Roger.

43:29:54 CC Gemini XI, this is Houston. 1 minute and 30 seconds until LOS at Canton.

43:29:59 C Roger, Houston. Standing by.

43:30:58 CC Canton approaching LOS.

43:31:01 P Gemini XI.

GUAYMAS

43:40:35 CC Gemini XI, Houston at Guaymas. Stand by.

43:40:38 P Roger, Houston. We're standing by.

43:40:53 P Houston, Gemini XI. How does Agena attitude look right now?

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43:41:03 CC Roger. We'll tell you when you get to Texas. Over.
43:41:06 P Roger.

TEXAS

43:43:13 CC Gemini XI, Houston. We show you an SC-2, with
your attitude holding good.
43:43:19 P Gemini XI. Roger.
43:43:22 CC If you will turn your Encoder OFF, we'll check that
VM load one more time.
43:43:25 P Roger. You want Encoder OFF, you say?
43:43:47 CC Gemini XI, Houston. You can turn your Encoder back
ON. Your VM load is good.
43:43:52 P Roger.
43:50:20 P We're at SC-7, Houston.
43:50:23 CC Roger. We show that down here.
43:52:14 CC Show your VM ENABLE.
43:52:19 P Roger, Houston.
43:52:42 P 501.
43:52:44 CC Roger. 501.
43:53:15 CC We show your 16 pounders going.
43:53:21 P Roger. We have a leak.
43:54:32 P Good burn?
43:54:34 CC Roger.

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BERMUDA

43:55:05 P Hello, Houston, this is Gemini XI.
43:55:09 P Address reads 20518.
43:55:14 CC Roger.
43:55:17 P Address 81 reads 0013.
43:55:22 CC Roger.
43:55:25 P Address 82 reads -0122. Over.
43:55:35 CC Roger.
43:55:42 P It looks like a couple of H4B's, side by side, John.
43:55:47 CC Really something, isn't it!
43:56:19 P You have our latest orbit?
43:56:26 CC Roger. In a second.
43:56:36 P I got the blue movies of all three burns, and they
ought to be interesting since the lighting condi-
tions were different on each one.
43:56:44 CC Houston. Roger.
43:57:04 CC Houston. Your VM still ON?
43:57:11 P Say again, John.
43:57:16 CC Roger. Is your VM still ON? Over.
43:57:19 P Roger. I thought I said 520. I'll check it again.
43:57:26 P 520. Check it.
43:57:30 CC Roger. It's DISABLE now.
43:57:32 P Roger. Thank you.
43:57:48 CC Right now you're in a 155 by 156, Gemini XI.

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43:57:52 P That's not bad for a couple of big burns, is it?
43:57:56 CC That's outstanding, I'd say!
43:58:01 P Tell Neil it doesn't look like we have to make those tune-up SPS burns for him.
43:58:06 CC That's a big disappointment to me, Dick.
43:58:10 P Sorry about that, old Buddy.
43:58:12 CC Maybe next time.
43:58:37 CC Gemini XI, Houston. 30 seconds till LOS at Bermuda.
43:58:40 C Roger.
43:58:45 CC That was a good show up there.
43:58:47 C Thank you, John.
43:58:50 P We have a long day ahead of us.
43:58:52 CC Sure do.

CANARY ISLANDS

44:02:12 CC Gemini XI, Canaries.
44:02:15 P Yes.
44:02:16 CC Okay. I'd appreciate it if you would turn your Encoder OFF so we can dump the Agena.
44:02:21 P Encoder's OFF.
44:02:22 CC Okay. Thank you.
44:02:25 CC We're going to hit you with a T_X here.
44:02:29 P Roger.
44:02:57 CC Okay. Gemini XI, Canaries. We're ready for your fuel cell purge, Section 2 then 1.

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44:03:03 P Roger.

44:03:08 CC When you have time, I have a PLA Update for you.

44:03:14 P Roger.

44:03:35 P Purging oxygen.

44:04:11 CC Gemini XI. You ready to copy PLA?

44:04:20 P This is Gemini XI. Stand by.

44:04:25 CC Roger. We're standing by.

44:04:38 P This is Gemini XI. Go ahead, will you?

44:04:39 CC Okay. Area 31-4: 49:28:28; 20 plus 20, 26 plus 05.
Area 32-4: 51:04:03; 20 plus 21, 26 plus 12.
Area 33-4: 52:39:40; 20 plus 18, 26 plus 17.
Area 34-3: 53:58:15; 20 plus 17, 25 plus 56.
Area 35-3: 55:34:31; 20 plus 17, 26 plus 08.
Area 36-3: 57:10:31; 20 plus 17, 26 plus 19.
Area 37-3: 58:49:21; 20 plus 21, 26 plus 16.
Bank angles for all areas: roll left 85, roll right 95. Weather in all areas good. SEP Maneuver required on all areas. Did you copy?

44:07:31 P Gemini XI, copy. 1 minute to go on the oxygen purge.

44:07:36 CC Roger.

44:08:20 CC Okay, Gemini XI, Canaries. You can turn your Encoder back ON.

44:08:24 P Roger. Encoder's ON and oxygen purge is complete right now.

44:08:40 CC Gemini XI, this is Canaries. Did you do an H₂?

44:08:43 P That's affirmative.

44:08:45 CC We didn't see it on the ground here. We'll play it back after you pass.

44:08:48 CC Okay. Would you place your Cryo switch to O₂, please?

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44:08:54 P Roger. O₂.

44:08:59 CC Would you place your Cryo switch load to H₂, please?

44:09:02 P H₂.

44:10:04 CC Okay. Gemini XI, this is Canaries. You can place your Cryo switch OFF.

44:10:09 P Roger.

44:10:10 CC That's all we have for you this time.

44:10:11 P Roger. And we're all GO up here.

44:10:13 CC Roger. We show you GO on the ground.

KANO

44:13:51 CC Gemini XI, this is Houston at Kano. Stand by.

44:13:56 C Roger, Houston.

44:14:37 C Houston, Gemini XI.

44:14:39 CC Go ahead.

44:14:41 C Ask the Flight Surgeon if I'm supposed to take another foxtrot. For I am GO for today.

44:15:04 CC This is Houston. Will you say that again? Over.

44:15:07 C Roger. Ask the Flight Surgeon if I should take another foxtrot?

44:15:25 CC Go ahead. Over.

44:15:28 C Say again?

44:15:31 CC This is Houston. Go ahead and take it. Over.

44:15:32 C Okay. We'll make the EVA on time.

44:15:36 CC Roger.

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44:16:23 CC Gemini XI, Houston. On that foxtrot, are you having any problems? Over.

44:17:32 C I'm not having any problems; it's just that I don't like to stop and take time.

44:17:34 CC Roger.

TANANARIVE

44:22:47 CC Gemini XI, Houston at Tananarive. Stand by.

44:22:50 C Roger.

44:22:54 C We're trying to grab a quick bite. We haven't had had anything to eat yet today.

44:23:00 CC Roger. Go to it.

44:23:03 C What was that?

44:23:05 CC Be our guest.

CARNARVON

44:37:58 CC Gemini XI, Carnarvon.

44:38:00 C Go ahead.

44:38:02 CC Have you finished your lunch yet?

44:38:04 C Just finishing up. We'll be starting our EVA Prep here shortly.

44:38:08 CC Okay. We would like to get a Crew Status Report from you.

44:38:12 P Okay. Wait.

44:38:21 P The Pilot ate Day 2, Meal A, everything but the solids. The Command Pilot ate Day 3, Meal B and everything but the solids. And the water gun - the water gun reads 1167.

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44:38:49 CC Roger.

44:38:54 CC And I've got an S-13 Update for you when you are ready to copy.

44:39:01 C Okay. Wait.

44:39:05 P Okay. Go ahead with it.

44:39:07 CC Okay. The Time is 45:00:00, Mode A; Address 25, 99786; Address 26, 91139; Address 27, 91713; sunset, 46:12:35.

44:39:40 P Gemini XI. Copy.

44:39:42 CC Roger.

CANTON

44:58:22 CC Gemini XI. Houston from Canton. Over.

44:58:26 C Wait.

44:58:42 C Go ahead, Houston.

44:58:45 CC Roger. Have you been thinking about this window cleaning? Over.

44:58:49 C Say again?

44:58:50 CC Have you been thinking about this window cleaning during the stand up EVA? Over.

44:58:56 C No. I don't think he can reach either one.

44:59:00 CC Roger. We were worried about that he might put inadvertent tension on the hoses reaching the windows, and the probability exists that you can't reach either of them. Over.

44:59:16 C Okay. Now we only plan to try.

44:59:18 CC Okay.

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GUAYMAS

45:15:40 CC Gemini XI, Houston at Guaymas. Stand by.

45:15:44 C Roger.

45:15:48 C We're progressing. We're a little late, but I think we'll make it all right.

45:15:54 CC This is Houston. Roger.

45:20:44 CC Gemini XI, Houston. Over.

45:20:46 P Gemini XI. Go.

45:20:47 CC Roger. You want to pump up that Manual heat when you get a chance? Over.

45:20:54 P Roger. Manual O₂ going up. We're getting ready for a Suit Integrity Mission Check.

45:20:58 CC Roger.

TEXAS

45:26:39 C Houston, Gemini XI.

45:26:41 CC Go ahead.

45:26:43 C We missed ... could you find ... for us for about 45:40:00?

45:26:59 CC Roger. We'll work on it.

45:27:04 C Okay. We're going to make it on time.

45:27:06 CC Roger.

45:29:50 C Houston, Gemini XI.

45:29:52 CC Go ahead. Over.

45:29:54 C We have both A-Pumps on for the Check List and we've missed Suit Integrity Checks on both Pilot and Command Pilot.

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45:30:06 CC Roger. We saw them down here. Looks good to us, too.
45:30:09 C Okay.
45:30:46 CC Gemini XI, Houston. Over.
45:30:51 C Go ahead.
45:30:53 CC Could you send a RESET TIMER RESET, 060?
45:30:59 C 060. Roger.
45:31:03 CC Near the point command for 45:40? Over.
45:31:08 C ...
45:31:14 P Bring it in slow and we'll put it in the computer direct.
45:31:18 CC Roger. 24, 08473; 26, 05027.
45:31:43 C Got it.
45:31:44 CC 27, 91713.
45:32:00 C Got it. Thank you.
45:32:03 CC Roger. And sunset is still 46:12:35.
45:32:07 C 46:12:35.
45:32:58 C Houston, this is Gemini XI.
45:33:02 CC Go ahead. Over.
45:33:03 C At the bottom of the Check List, it says that Primary A, Secondary B. Which do you want?
45:33:14 CC Primary A, Secondary B is good. Over.
45:33:18 C Okay.

CANARY ISLANDS

45:38:19 CC Gemini XI, Canary here.

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45:38:20 C Go ahead.
45:38:22 CC Okay. We have nothing for you at this time. Both vehicles are GO and we are standing by.
45:38:25 C Okay.

KANO

45:45:46 CC Gemini XI, Houston at Kano. Standing by.
45:45:50 C Roger. Houston.
45:51:42 CC Gemini XI, Houston. 1 minute to LOS at Kano.
45:51:48 C Roger. Houston.

TANANARIVE

45:57:15 CC Gemini XI, Houston at Tananarive. Standing by.
45:57:20 C Roger.
46:04:43 CC Gemini XI, Houston. 1 minute and 30 seconds to LOS at Tananarive.
46:04:48 C Roger. We are depressurizing.
46:04:53 CC Houston. Understand you're depressurizing.
46:04:56 C That's affirmative.

CARNARVON

46:13:57 CC Gemini XI, Carnarvon CAP COM. We're standing by.
46:14:01 C Roger. We're depressurized. We have the cameras installed between the hatch and we're just waiting to pick up the stars. We haven't got them yet.
46:14:09 CC Roger.

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46:21:25 CC Gemini XI, Carnarvon. We're 1 minute to LOS.
46:21:29 C Roger. We're taking pictures at this time. We're on the first series Shaula.
46:21:34 CC Roger.

CANTON

46:33:34 CC Gemini XI, Houston at Canton. Standing by.
46:33:38 C Roger, Gemini XI. ...
46:33:51 C Hey, Houston! You read me?
46:33:54 CC Roger. You're very garbled, Pete. Say again. Over.
46:33:56 C Okay. I'm just bitterly complaining about the grease on my window. It's so bad that I can't even see the stars. All I can see are principal stars out of it. The grease is on the inside of the outer pane.
46:34:13 CC Roger. Inside the outer pane?
46:34:18 C Roger. We're going along just fine. We wouldn't be doing this well if we didn't have the Agena working for us.
46:34:26 CC Roger. Need the pointing commands to see the star - to get the star.
46:34:31 C Yes. We used first ... we're locked up on Antares right now, doing great on heading for Aries. We might get all three of them.
46:34:44 CC Roger. Great!
46:34:48 C Say again?
46:34:49 CC That'll be wonderful!

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HAWAII

46:40:11 CC Gemini XI, Hawaii standing by.

46:40:15 C Roger. Hawaii.

46:42:13 C Say, Hawaii, we're on Orion, our last set. We got all three sets.

46:42:18 CC Fine job!

46:42:25 C Okay. We plan to fly ... We plan to roll left 80 degrees, and keep it on the horizon. Is that okay with everybody from Thermo?

46:42:43 CC Okay. That's all right.

46:44:29 C Hawaii, Gemini XI.

46:44:30 CC Go ahead.

46:44:32 C Have we got enough oxygen? We'd just as soon come back in, repress and open it up again on the next night pass.

46:44:39 CC Let me get a check here.

46:44:42 C Okay. Otherwise, we'll stay in here.

46:45:08 CC Gemini XI, Hawaii.

46:45:10 C Go ahead.

46:45:11 CC Okay. We show about 56 percent. You've got enough to get back in and out again.

46:45:15 C Okay. We may stay and take some pictures for awhile.

46:45:18 CC Okay. Very good.

46:46:50 CC In case you want to take some pictures of Houston, there is no cloud cover there, Gemini XI.

46:46:53 C Okay, Hawaii. We're going to. We're going to stay out.

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46:46:57 CC Okay.

46:46:59 C We'll take an EVA.

46:47:01 CC Sounds like a winner!

46:47:05 C Hey, could you - I got PQI covered up. Could you tell how much fuel I'm using? I have the impression I'm using a batch.

CALIFORNIA

46:51:18 CC Gemini XI, Houston at California. Over.

46:51:21 C Roger.

46:51:24 CC Roger. You used about 25 pounds of fuel since Carnarvon. Over.

46:51:29 CC ... Over.

46:52:59 C Houston, Gemini XI.

46:53:01 CC This is Houston. Go ahead.

46:53:03 C How much fuel did you say we used?

46:53:06 CC 25 pounds of propellant. Over.

46:53:09 C How much?

46:53:10 CC 25 pounds from Carnarvon to Hawaii.

46:53:15 C You're very weak. I can't hear you.

46:53:19 C I've got a drop of 5 pounds.

46:53:24 CC That's 25 pounds, Pete.

46:53:28 C Roger ... 5 pounds.

46:53:32 C ...

46:53:41 C Say, John, where are we?

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46:53:43 CC You're right over Baja California.
46:53:47 C ... covered with clouds.
46:53:57 CC Gemini XI, Houston. You have used 25 pounds. Over.
46:54:04 C Okay. Now I'm with you. I couldn't hear you before, John. You're much better on that transmitter.
46:54:12 C Okay. It'll probably cost us another 35 or 40 pounds. Is that too much?
46:54:21 CC Roger, Gemini XI. We're planning on waking you guys up early tomorrow, you know.
46:54:26 C Yes. That's what's bothering me.
46:54:39 C I'm showing 33 percent.
46:54:43 CC Roger. That jibes with our number.
46:56:19 CC Looks like you're somewhere around El Paso now, Gemini XI.
46:56:35 C Hey, John, I think we knocked suit fan Number 1 OFF. We just turned it back ON again. You can see that on the ground.
46:56:44 CC Roger.

TEXAS

46:56:53 C Say again?
46:56:59 C Man, does Houston ever look beautiful down there!
46:57:08 C Tell Doctor Jones he's going to get his pictures.
46:57:13 C We got this camera tied to the Spacecraft.
46:57:21 CC Roger.
46:57:24 C Say again?
46:57:25 CC Your approaching MSC now.

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46:57:28 C Tell Doctor Jones he's going to have his pictures.

46:57:32 CC Roger. Appreciate that.

46:57:35 C It's beautiful down there. It's gorgeous!

46:57:45 C Oh, this is no job, it's a privilege.

46:57:49 CC Roger. Do you see those kids on the roof?

46:57:55 C They'd better not be there. ... while he's taking the good view, I'm getting burned up looking into the sun. That's a real nice guy.

46:59:26 C Where are we, John?

46:59:29 CC Should be right over New Orleans.

46:59:31 C Okay.

46:59:34 CC Maybe Pensacola or Mobile.

46:59:37 C Okay. I've got myself orientated now. I see Florida.

46:59:45 C We're drifting in RATE COMMAND at 80 degrees, roll left and pitch down about 30. We've got sun on top of the hatch.

46:59:52 CC Roger.

47:00:42 C Man, are we going to get a spectacular shot of the Cape, too!

47:00:58 CC Roger. It looks like you're going to be a little north of there.

47:03:56 CC Gemini XI, Houston. Do you require a point command for the next star? Over.

47:04:03 C No. We'll find it.

47:04:05 CC Roger. We've got some if you want to hear them. Be a little rough in that hard suit.

47:04:09 C Hey, thanks a lot. You guys are all right.

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47:04:13 C We'll use the old one. That's close enough for Government work.

47:04:16 CC Right.

47:09:53 CC Gemini XI, Houston. Over.

47:09:55 C Yes.

47:09:58 CC Roger. From Carnarvon you have used about 50 pounds of propellant so far. Over.

47:10:01 C Okay. Can you give me a cutoff for the early wake-up?

47:10:12 CC I guess.

47:10:13 CC Roger. No cutoff. Over.

47:10:16 C Okay.

47:10:28 CC 1 minute to LOS, Gemini XI.

ASCENSION

47:17:52 CC Gemini XI, this is Houston at Ascension. Over.

47:17:55 C I hear you, Houston. Gemini XI. We are just standing by to make a night pass.

47:18:00 CC Roger.

47:22:52 CC Gemini XI, this is Houston at Ascension. 1 minute to LOS. Over.

47:22:56 C Okay. We're standing by.

47:23:09 C Where's the perimeter? At Tananarive?

47:23:20 CC Roger. Sunset's at 47:42:57. Over.

47:23:25 C Roger. Thank you.

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TANANARIVE

47:33:04 CC Gemini XI, Houston at Tananarive. Standing by.
Over.

47:34:01 CC Gemini XI, Houston at Tananarive. Standing by.

47:34:05 P Roger. You've got two guys taking catnaps up here,
that's all.

47:34:15 CC Gemini XI, this is Houston. Say again. Over.

47:34:18 P I said we were taking a catnap.

47:34:23 CC Roger. That's a first. First sleeping in a vacuum.

47:34:28 P Roger. We both just fell asleep here and ... and
woke us both up.

47:34:40 C Hey, John, some moving thing went straight over
the Spacecraft.

47:34:45 CC This is Houston. Say again. Over.

47:34:49 C Some moving thing went straight over the Spacecraft.

47:34:59 C We've been letting little pieces of Velcro go and
they all just take off straight up, right out of
the Spacecraft, although we're rolled over on our
side.

47:35:14 CC Roger. I think that's the Collins effect or the
Cernan effect. Over.

47:35:24 P Well, it seems to work.

47:35:35 P ...

47:40:08 CC Gemini XI, Houston. 1 minute 30 seconds till LOS
at Tananarive. Over.

47:40:12 P Roger. We just passed through the dark band.

47:40:15 CC Roger.

47:42:36 C We've got the Recorder ON and it's daytime EVA Test,

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and Dick's looking for stars outside the hatch in the daytime and he can't see any. I'm in here with nothing but my faceplate between me and the black sky and the shadow. I can't see any stars through the open hatch, either.

- 47:42:53 C I don't have too big a sky to look at.
- 47:42:56 C The Recorder is ON.
- 47:42:58 P Oh, it's off to my right.
- 47:43:01 C It's off to your right. Okay.
- 47:43:02 P I've got it. There goes the sun. Finally!
- 47:43:20 C I got it.
- 47:43:22 P Oh no! That's something shining off that light.
- 47:43:31 C See any yet?
- 47:43:34 P No. I think we've go to yaw off to the right.
- 47:43:47 P I don't know where we are.
- 47:43:51 C Now just a minute. We're pitched up, that's all.
- 47:43:54 P What?
- 47:43:55 C We're pitched straight up and rolled left 90 degrees from the Orbital Track.
- 47:44:06 C Think the star's coming toward me.
- 47:44:12 P They should be right in front of us.
- 47:44:14 C See any stars yet?
- 47:44:16 P Okay, okay. Yaw right.
- 47:44:18 C Yaw right?
- 47:44:20 P Yes.
- 47:44:21 P Don't bump it. I've got it all.

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47:44:24 P Yaw right.

47:44:26 P Yaw right!

47:44:28 C I am yawing right.

47:44:29 P No you're not.

47:44:34 C I'm yawing right.

47:44:35 P You're rolling. Go on.

47:44:37 C I may be rolling, but I'm also yawing right.

47:44:40 P Okay, okay. Now they're showing. Where do you want Antares?

47:44:45 P Where do you want Antares?

47:44:48 C I want it right in front of the darn Spacecraft.

47:44:50 P Where do you want Pleiades?

47:44:52 C Off the right wing.

47:44:54 P Okay, you've got to roll 100 degrees.

47:44:56 C No I don't.

47:44:57 P To the right.

47:44:58 C No I don't.

47:44:59 P Yes you do.

47:45:00 C No I don't. I want to - is the - Antares to my left?

47:45:02 P No, it's to your right.

47:45:04 C To my right?

47:45:06 P Yes.

47:45:08 C Boy, am I backwards today!

47:45:10 C Now I see it. Yes. Okay.

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47:45:13 P Roll 108.
47:45:15 C Yes, just a minute.
47:45:20 C Hey, we're rolling the wrong way.
47:45:22 P You are rolling 108. I don't care which way you go.
47:45:24 P Yes, but - -
47:45:51 P ... see Antares.
47:45:53 C Yes, I think I do. I don't know.
47:45:56 P It's off to your right.
47:45:59 P She's rolling right. And straight up. It's straight up.
47:46:02 C Yes, I see it.
47:46:06 P There you go.
47:46:20 C Yes, I've lost it again, ...
47:46:21 P No.
47:46:28 C Now I can't see it. Wait a minute! Wait a minute!
47:46:29 C I've got to yaw left to get there.
47:46:32 P That was a bad thrust.
47:46:33 P That's correct. That's correct.
47:46:34 C Okay.
47:46:35 P That's it, right there.
47:46:36 C All right. Just a minute.
47:46:39 C Wait a minute!
47:46:41 P That's beautiful!
47:46:42 C All right.
47:46:45 P Are you ready?

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47:46:47 C No. Just a minute. Hey, you're close enough, aren't you?

47:46:54 P Turn on the Agena.

47:46:56 C It's on.

47:46:57 P Okay.

47:46:59 C The attitude control system is on. We'd better stabilize for awhile.

47:47:10 P It's going to be about 10 degrees up in the window. I can't help that.

47:47:27 P Okay, it's going to be real cheap. We're going to get all the pictures right here without even moving. All I've got to do is roll.

47:47:33 C Which way?

47:47:34 P Roll right, pitch-yaw in the center.

47:47:37 C What do you do if you get under the left wing again?

47:47:39 P Okay, okay!

47:47:41 C What?

47:47:42 P Okay. I missed it.

47:47:44 C Okay. We'll give it 5 more seconds.

47:47:46 P Okay.

47:47:47 C Stand by.

47:47:49 C MARK.

47:47:51 P Wait a minute!

47:47:54 C Okay. 5. Right there.

47:47:55 P Yes. I wish you hadn't done that. Let's see: 14, 23, 34.

47:48:12 P Stop!

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47:48:15 C What's the matter?
47:48:16 P I'm not sure I took that picture. Try again.
47:48:22 P Say when.
47:48:23 C Stand by.
47:48:24 C MARK.
47:48:44 C Stand by.
47:48:45 P Stop.
47:48:49 C Are you ready?
47:48:53 P Yes.
47:48:54 C MARK.
47:48:55 P Okay.
47:48:57 P Okay. Antares really looked beautiful.
47:49:13 C Stop it.
47:49:14 P Okay.

CARNARVON

47:49:16 CC Gemini XI, Carnarvon. We're standing by.
47:49:19 C Roger. We're taking pictures. Stand by.
47:49:21 P Okay.
47:49:22 C MARK.
47:49:24 P Okay.
47:49:44 C Stop it.
47:49:45 P Okay.

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47:49:47 C Next two at 1 minute each. Ready?

47:49:49 P No. Okay.

47:49:50 C Stand by.

47:49:54 C MARK.

47:50:00 C Take your time. We've got lots of time. We don't have to go anywhere. We're just going to move just a little bit.

47:50:36 P This has been a long minute.

47:50:39 C 15 seconds to go.

47:50:51 C Stand by.

47:50:54 C Stop.

47:51:02 C Stand by.

47:51:05 P Okay.

47:51:09 C MARK.

47:52:08 C Stand by.

47:52:09 C Stop.

47:52:11 C Okay. 1 minute. Did you fall asleep?

47:52:13 P No.

47:52:20 C Okay.

47:52:23 C Stand by. We'll have to wait a minute or 2 while I get it on the even one. We've got plenty of time. Are you getting tired?

47:52:34 P Yes.

47:52:35 C Okay. Stand by.

47:52:36 P Okay.

47:52:37 C MARK. It'll what?

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47:53:37 C You know what's going to happen, don't you?

47:53:40 P What?

47:53:41 C It's going to run into the horizon before we get them all.

47:53:44 P Maybe.

47:53:50 C What?

47:53:51 P ...

47:53:52 C The ... I say, I can't make 2 minutes go any faster.

47:54:03 C You could pop in and turn off the Agena when we get done and get ...

47:54:12 C What?

47:54:14 P It feels like - -

47:54:17 C What?

47:54:18 P - - It feels like 5 minutes out here.

47:54:20 C Well, I don't know. I'm liable to lose track. 6 or 7 minutes was what I was shooting for here.

47:54:28 C 15 seconds.

47:54:35 C MARK.

47:54:36 P What?

47:54:37 C MARK.

47:54:38 P Okay.

47:54:39 C Pop off and turn off the Agena.

47:54:41 P ...

47:54:42 C Easy does it now. No rush. Just stay right where you are, because I - what?

47:54:50 P It's OFF.

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47:54:52 C It's OFF?

47:54:54 P Yes.

47:54:55 C Okay. Just stay right where you are.

47:55:03 P Hey, there's Shaula!

47:55:05 C Okay.

47:55:26 C All right. Turn on the Agena.

47:55:27 P What?

47:55:28 C Turn on the Agena.

47:55:30 P ...

47:55:31 C What?

47:55:32 P Get set.

47:55:33 P It's ON.

47:55:34 C Okay, let's start again.

47:55:35 P Okay. Stand by.

47:55:37 C Any time you're ready.

47:55:39 P Let me attach the film.

47:55:41 C Okay, but it's got to settle down for a minute.

47:55:44 P Okay.

47:55:45 C Stand by.

47:55:49 P I can't see Shaula. It's on his nose.

47:55:50 C I couldn't either until the nose came to your right.

47:55:53 P Oh, I've got it now. I see it. It's okay.

47:55:54 P That's good.

47:55:56 P We'd better let it settle down for about 30 seconds.

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47:55:59 C Okay.

47:56:02 P We're just barely going to get these pictures.

47:56:07 C Okay. Stand by.

47:56:08 C MARK.

47:56:29 C MARK.

47:56:30 C Okay?

47:56:33 P Any time you're ready.

47:56:34 C Advance to FILM.

47:56:42 P Okay.

47:56:44 C Stand by.

47:56:45 C MARK.

47:56:56 CC Gemini XI, Carnarvon. We're 1 minute to LOS.

47:56:59 C Roger.

47:57:05 C Stop.

47:57:06 P Okay.

47:57:08 C One more of those.

47:57:11 C Ready?

47:57:12 P Okay.

47:57:13 C Stand by.

47:57:14 C MARK.

47:57:34 C Stop.

47:57:40 C Ready again?

47:57:42 C Stand by.

47:57:43 C MARK.

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47:57:44 P Okay.

47:57:59 P This is a 1-minute one, isn't it?

47:58:00 C Yes.

47:58:29 C MARK.

47:58:30 P Good flares down there in Australia.

47:58:34 C Yes.

47:58:35 C Stand by.

47:58:44 C MARK.

47:58:45 P Okay.

47:58:48 P We aren't going to get the 2-minute one.

47:58:50 C Yes we are!

47:58:53 P No. Not enough left.

47:58:54 C On my Mark.

47:58:55 C MARK.

47:58:57 P Not enough left.

47:58:58 C Yes there is.

47:58:59 P No.

47:59:00 C This is a 1-more-minute one.

47:59:01 P Yes. Turn it off.

47:59:03 P Yes.

47:59:05 C I can add up the number of degrees on the ball.

47:59:08 C That's about 10.

47:59:20 P We'll just make it.

47:59:42 C Stand by for 5 seconds.

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47:59:56 C 2, 1 -
47:59:57 C Stop.
47:59:58 C Okay. One 2-minute one.
47:59:59 P Okay. Any time you're ready.
48:00:00 C Hit it!
48:00:01 P Okay.
48:00:02 C MARK.
48:00:03 P Okay.
48:00:04 P 225 to be 425.
48:00:28 C I guess all we have to do is - we can either yaw over the top or yaw around the horizon. I think it would be best to yaw over the top. Our line's right on the Orbital Track, isn't it?
48:00:38 P Yes.
48:00:40 P We are supposed to do it.
48:00:44 C What?
48:00:45 P That's what we're supposed to be on.
48:00:46 C That's what I said.
48:00:47 P Either way.
48:00:48 C What?
48:00:50 P I said either way.
48:00:52 P Well, I have to get to Orion next.
48:00:54 C That's what I was saying. Pitch or yaw?
48:00:55 P Well, I think yaw is the shortest way, isn't it? Off the Orbital Track?
48:00:58 C Yes.

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48:01:05 P Try it one more time.

48:01:07 C I'll hold another minute.

48:01:08 P Okay.

48:01:10 C Shoot it over there.

48:01:12 P What?

48:01:46 C 20 seconds.

48:02:06 C MARK.

48:02:07 C Any time you want to turn the Agena off.

48:02:21 P It's OFF.

48:02:23 C Okay.

48:02:24 C I'm going to use DIRECT now so look out. Don't hit the hand controller.

48:02:31 C Is the tape recorder on?

48:02:33 P Yes.

48:02:34 C Okay. ... still right now. I have to check out something.

48:02:38 P What's the matter?

48:02:46 C I just want to make sure this pitch thing was GO.

48:02:52 P Okay. It is.

48:03:00 C Now somewhere - I know - I bet it pitched down just a bit.

48:03:08 P ...

48:03:10 C What?

48:03:12 C Well, I'll pitch it up - I'm yawning up the Orbital Track.

48:03:15 P Yes.

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48:03:16 C Okay.

48:03:17 P What did you pitch-down for?

48:03:19 C Because I think Orion is under our nose a little bit. It's a little bit to the right of the Orbital Track, isn't it?

48:03:25 P Yes, but that would make it to the left, where we're drifting right BEF.

48:03:29 C What?

48:03:32 P We're going to go BEF.

48:03:34 C Well, you let me figure it out on the ball.

48:03:37 P Okay.

48:03:38 C (Laughter). You tell me where he is. I think I'm going in the right direction.

48:03:41 P Okay.

48:03:42 C That's the best I know.

48:03:44 P Keep going.

48:03:54 C Now to play it straight up in the sky and we're yawing to the right of the Orbital Track, just a little bit on a road less 90. Now Orion should be perpendicular to us someplace. Maybe in our nose. That's what's bothering me.

48:04:13 P Well, there is ...

48:04:15 C Well, you know how to steer me.

48:04:18 P Yes.

48:04:19 C What?

48:04:20 P Yes. I know. I'm going to steer you - pitch it back up the way I wanted you to be.

48:04:26 C You want me to pitch-up?

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48:04:28 P Yes.

48:04:30 C All right. Pitching up.

48:04:32 P Okay.

48:04:38 C Do you want me to stop yawning?

48:04:39 P No, keep going.

48:04:41 C Okay.

48:04:44 P Pitch-up a little more.

48:04:50 P Keep going.

48:04:59 C Great, isn't it?

48:05:01 P Yes.

48:05:02 C Okay.

48:05:04 P Now stop and roll left.

48:05:06 C Wait a minute. Let's - let that do it.

48:05:09 C All right, now.

48:05:11 P I want Betelgeuse on your left flank.

48:05:15 C Okay. Like I said, roll left.

48:05:17 P Roll left.

48:05:27 P You want Orion in the center, don't you?

48:05:29 C Yes. Is that the third star in the solar?

48:05:35 P Yes. Okay.

48:05:40 C We're going to run out of tape.

48:05:45 P Well, we've got lots of time. Lots of photographs.

48:05:50 P Because this thing is going to go all the way across the sky.

48:05:54 C Yes. ...

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48:05:56 P Yes.

48:05:57 C Just a second.

48:06:06 C I can't see Betelgeuse. It's in my - -

48:06:07 P That's better.

48:06:08 C What?

48:06:09 P That's better.

48:06:11 C All right, leave it.

48:06:12 P Your roll's good.

48:06:13 C All right.

48:06:15 C Turn the Agena on.

48:06:16 P Okay.

48:06:20 P The Agena's ON.

48:06:21 C Okay. Control's OFF.

48:06:25 P Let it settle down?

48:06:28 C All right. We won't move again from here. We will use INGRESS position when you're ready.

48:06:33 P Okay.

48:06:44 C That ought to settle down for about 35 or 40 seconds.

48:06:49 P Looks perfect.

48:06:58 P Any time.

48:07:00 C I have to let it settle down for awhile.

48:07:03 C We've got plenty of time.

48:07:10 C In 8 seconds, are you ready?

48:07:13 P Yes. I'm ready.

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48:07:14 C Okay.

48:07:16 C Stand by.

48:07:17 C MARK.

48:07:18 P Got it.

48:07:38 C MARK.

48:07:39 P Okay.

48:07:47 C Are you ready?

48:07:48 P Yes.

48:07:49 C Stand by.

48:07:50 C MARK.

48:08:10 C Stop.

48:08:11 P Okay.

48:08:16 C Tell me when you're ready.

48:08:18 P All ready.

48:08:19 C MARK.

48:08:20 C MARK.

48:08:21 P Okay.

48:08:39 C Stand by. Ready for stop.

48:08:41 P Okay.

48:08:45 C Let me know when you're ready.

48:08:47 P Ready.

48:08:48 C Stand by.

48:08:52 C MARK.

48:08:53 P Got you.

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48:09:04 C Say 1 minute, I want 12:50.
48:09:06 P Okay.
48:09:08 C It's now 11:30.
48:09:17 C Zero attitude.
48:09:21 C He's just where you want him.
48:09:46 P How long is it?
48:09:47 C You've got 5 seconds.
48:09:53 C MARK.
48:09:55 C And another 1-minute one.
48:09:58 P Okay.
48:09:59 C Stand by.
48:10:02 C MARK.
48:10:04 P 12:25. Stop at 13:25.
48:10:14 C We've just been up for 2 days and 10 minutes.
48:10:23 P You can't beat that.
48:10:24 C What?
48:10:25 P I said you can't beat that.
48:10:59 C 5 seconds.
48:11:07 P 10 minutes.
48:11:11 C Right. One more picture. 2 minutes.
48:11:16 C Let me know when you're ready.
48:11:17 P Ready.
48:11:19 P Wait a minute.
48:11:20 P I'm ready.

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48:11:21 C Stand by.

48:11:22 C MARK.

48:11:23 C 13:45 and we'll send it off at 15:45.

48:11:26 C I didn't think we'd get this many done.

48:12:03 C 30 percent fuel remaining.

48:12:08 C 308 pounds.

48:12:10 P That will do the job.

48:12:16 C Okay. We've got 1 minute to go.

48:12:54 C Hey, you don't have to stand up to get that camera out of there, do you?

48:12:58 P No.

48:12:59 C You're in a good position to EGRESS. Aren't you in EGRESS?

48:13:01 P I think so.

48:13:03 C We'll turn up the lights WHITE on the inside and on my side, and you can look at that seal all around and then we'll just get in. Okay?

48:13:10 P Okay.

48:13:13 C Time is 10 seconds.

48:13:22 C You can stop taking your pictures.

48:13:24 P Okay.

48:13:26 P I'm going to go WHITE light.

48:13:31 P How's that?

48:13:33 C All right. Take it easy now.

48:13:36 C AMB to Gamma.

48:13:40 C Does your tether need to be loosened for you to get in?

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48:13:46 P I don't think so.

48:13:48 C Okay.

48:13:51 C All right, now just a minute. Let me get the camera out of the way and my hand over here. All right. I'm ready.

48:13:56 C Wait a minute. Give me time to get the tether in here. Okay. Go ahead.

48:14:01 C There you go. How's the hatch seal - clean all the way around?

48:14:05 P How about all of this ...

48:14:09 C Okay.

48:14:21 C Wait a minute now. Be sure you check it down. Just let me get the hoses up out of the way.

48:14:26 P Another minute.

48:14:27 C What?

48:14:28 P About a minute.

48:14:29 C Wait a minute.

48:14:30 C All right. Now your hoses are inside. Good shape.

HAWAII

48:14:31 CC Gemini XI, Hawaii. Standing by.

48:14:44 C Come on, Dick.

48:14:51 C Now is it in?

48:14:52 P What?

48:14:53 C Pull it in.

48:14:54 P Okay. On my head. Here, wait a minute.

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48:14:56 P Hey, ... all the way.
(Laughter)

48:15:06 C 2, 3, get off.

48:15:16 C Okay. There you go. Put it in NEUTRAL.

48:15:24 C Okay. Here goes the fan end. I can't see your dogs, but it looks to me like you're in all right. Turn your light on.

48:15:32 C I'll get you ... Yes, they're all in all right. Look around the hatch. Do you see anything?

48:15:39 P No.

48:15:41 C Okay.

48:15:42 P That's in. Cabin vent's on CLOSED and Repress coming ON.

48:15:51 C Hello, Hawaii. Gemini XI here. We were in the middle of INGRESS when you called. We have closed the hatch and we have started to Repress, and we've got all of S-13 complete.

48:16:07 CC Okay. We copy all that.

48:16:10 CC Standing by until you're Repress.

48:16:16 C I've got - showing about 2/10ths of a pound now.

48:16:33 P Boy, my legs are tired.

48:16:35 C Your - I'm tired all over. Man, I'm beat!

48:17:17 P We went to MANUAL HEATER and we hold at 700 psi. We shot 1 psi.

48:17:20 CC Roger.

48:17:28 CC How about that! Your meter reads just like ours.

48:17:33 C Just wanted to check on the ground to see how you're doing.

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48:17:37 C Are we GO?
48:17:38 CC According to mine you are, fourth time.
48:17:45 C Roger. Thank you.
48:17:53 P It's a beautiful night you have down there.
48:17:56 CC Haven't had a chance to look at it yet.
48:18:06 CC Incidentally, we're ginning up a little L-Band Test for you guys during the Tether Exercise. They'll pass that up over the States.
48:18:15 P Roger.
48:22:13 P Hawaii, Gemini XI.
48:22:15 CC Go ahead.
48:22:16 P Okay. We shut off the Repress. We're at about 4.8. Will the regulator top it off?
48:22:18 CC Okay. We concur.
48:22:27 P Boy, does it feel good to get that pressure off!
48:22:31 CC I'll bet it does. We have a minute for LOS. We will stand by in case you have anything else.
48:22:36 C Okay. We'll stick to the schedule for Dick hasn't looked at the Flight Plan here.
48:22:42 CC Let's see. You've got all your Post-Ingress procedures, then you have to purge.
48:22:48 P Is that over the States?
48:22:50 CC No, that's over Carnarvon.
48:22:51 P Excellent, excellent!

CALIFORNIA

48:24:59 CC Gemini XI, Houston at California. Over.

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48:25:03 P Roger, Houston. Waiting to switch onto our Post-Ingress.

48:25:10 CC Roger.

48:25:13 CC We have a 9-step L-Band Test procedure for you when you're ready to copy. Over.

48:25:21 P Okay. Wait.

48:25:46 P Okay. I'm ready to copy.

48:25:52 CC Okay, Gemini XI. Just prior to Undocking, we'd like to have you in the following configuration: have the L-Band in STANDBY 5 minutes prior to Undocking; have your computer in NAV; turn on the Agena. Transponder at 071; and then turn your Encoder OFF. After that, the ground will send SPIRAL SELECT and then you'll be clear to undock. Now after undocking, you'll want to hold a boresight at about 20 feet separation. After that, turn your Radar ON. We'll look at the antenna you're locked-on for about 3 minutes and if you're on the Spiral, we'll send DIPOLE SELECT. That will be from the ground. After that, you'll be clear to turn your Encoder back ON again. After 1 more minute of boresight, we'd like you to send ACQ LIGHTS ON and OFF, 251 and 250. We'd also like you to report azimuth, elevation, locked-on range, Range-Rate, and MAP. You can leave your Radar ON for the stateside pass.

48:27:57 P Okay.

48:28:02 P Let's see if I've got it all. L-Band to STANDBY 5 minutes prior to Undock, computer at NAV, and now the L-Band and Agena 071. Then turn our Encoder OFF. The ground will send SPIRAL SELECT. Back out, after undocked 20 feet, turn Radar ON, and we'll look at it for 3 minutes. The ground will send DIPOLE SELECT, and we can turn our Encoder ON and you will look for 1 more minute. Then you want us to send ACQ LIGHTS ON and ACQ LIGHTS OFF, 251 and 250. After that, you want a report on the azimuth, elevation, range, Range-Rate, and MAP.

48:28:43 CC Roger. That's correct and we have a Nodal Update

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for you.

48:28:46 P Roger. Wait.

48:29:06 P All ready to copy.

48:29:09 CC Roger. Node: 49:36:55; Rev 31, 135.5 east; 0 hours 53 minutes, right ascension.

48:29:32 P Say again the longitude, local elevation angle, and the right ascension.

GUAYMAS

48:29:46 CC Gemini XI, this is Houston through Guaymas. Do you read?

48:29:58 CC Gemini XI, Houston through Guaymas. Do you read?

48:30:00 P Yes. Say the longitude and right ascension again.

48:30:08 CC Roger. We faded through California. That's 135.5 east; 0 hours 53 minutes, right ascension.

48:30:15 P Say it again.

48:30:25 P Say again 135.5 what?

48:30:30 CC Gemini XI, this is Houston through Texas. That was 135.5 east; 0 hours 53 minutes, right ascension.

48:30:41 P Copy.

48:30:43 CC Thank you.

48:41:21 CC Gemini XI, Houston. Over.

48:41:23 C Go ahead.

48:41:24 CC Roger. Could you check your BIO-MED circuit breaker? Over.

48:41:28 C It's off. We'll get it on in just a second.

48:41:32 P I had it off when I changed the Stand-up cable.

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48:41:36 CC Roger.

48:41:41 P It's ON.

48:42:42 CC Gemini XI, Houston. Over.

48:42:43 C Go ahead.

48:42:44 CC Roger. Can you check your A-Pumps? Over.

48:42:50 CC Want both A-Pumps. Over.

48:42:51 P Primary A is ON. Secondary B is ON.

48:42:54 C Okay. A is ON in the Primary, and B is ON in the Primary. Do you want to put the other A-Pump ON?

48:43:05 CC Roger. You're fully powered.

48:43:07 C Say again?

48:43:08 CC Roger. You're powered-up. Over.

48:43:11 C Okay. We'll put the A ON in the Secondary.

48:46:06 CC Gemini XI, Houston. 1 minute and 20 seconds to LOS at Antigua.

48:46:13 C Roger. I have a feeling we're a little bit behind. We'll see how we progress. We'll let you know over Carnarvon. We're pretty busy.

48:46:22 CC Roger. That was a lot of EVA.

48:46:25 C Yes.

48:46:35 C Nerve-racking if nothing else. Right, Charlie?

48:46:40 CC Right. The new world's outdoor record.

48:46:44 C Roger.

ASCENSION

48:53:49 CC Gemini XI, Houston at Ascension. Standing by.

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48:53:51 C Roger.

48:58:31 CC Hello. Can you read me?

48:59:08 CC Gemini XI, Houston. Did you call?

48:59:11 C Negative.

48:59:23 P We're going to hate to leave this Agena. We're pretty tied to it.

48:59:27 CC Say again?

48:59:29 P I say we're going to hate to leave this Agena. We're pretty tied to it.

48:59:33 CC Sure are.

48:59:37 P ... the formation at 7 seconds Primary Propulsion, 3 minutes and 19 seconds. Secondary Propulsion and 43 percent oxygen.

48:59:51 CC Roger.

TANANARIVE

49:09:58 C Houston, Gemini XI.

49:10:06 CC Gemini XI, Houston. Say again?

49:10:08 C Roger. Al, we've inadvertently knocked off our electronic timer. Could you give us a GMT time hack?

49:10:15 CC Roger. We'll give you one in about 45 seconds. It will be timed 49:11:00.

49:10:26 C Roger.

49:10:32 CC About 30 seconds now.

49:10:35 C Roger. Understand 49:11:00. Count us down, please.

49:10:40 CC Roger.

49:10:52 CC 10 seconds.

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49:10:56 CC 5, 4, 3, 2, 1.

49:11:01 CC MARK.

49:11:02 CC 49:11:00.

49:11:12 P Roger. Missed hack at 10.

49:11:13 CC We missed it. We can try for 20.

49:11:16 P Make it 15?

49:11:20 CC 1,

49:11:21 CC MARK.

49:11:22 CC That was 20 seconds.

49:11:31 P Shows a lot of ...

49:11:33 CC Roger. We'll go all the way to 49:12:00.

49:11:43 CC 15 more seconds.

49:11:51 CC 10, 9, 8, 7, 6, 5, 4, 3, 2, 1,

49:12:01 CC MARK.

49:12:02 CC 49:12:00.

49:12:06 P Okay. We are with you.

49:12:07 CC Roger.

49:13:31 P Houston, Gemini XI.

49:13:34 CC Go ahead, Gemini XI.

49:13:35 P Al, I can't get any MAPS from the Agena unless I turn the L-Band ON, and then when I turn the L-Band ON, everything seems to be okay.

49:13:44 CC Roger. I understand you can't get commands in unless you turn L-Band ON and when you do, everything's okay. Is that correct?

49:13:50 P Well, at least they don't get any MAPS back. We

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couldn't get the STP to turn OFF, so that's correct.

49:14:09 CC Roger, Gemini XI.

49:14:51 CC Gemini XI, Houston.

49:14:55 P Go ahead.

49:14:56 CC Did you say that when you do command the STP ON and you do not receive a MAP light - the STP does, in fact, come ON?

49:15:09 P That's affirmative, Al.

49:15:10 C It was ON and I tried to command it OFF and it wouldn't go OFF. I had to turn the L-Band ON to get anything into the Agena at all.

49:15:20 CC I understand.

49:15:46 CC Gemini XI, Houston.

49:15:48 P Go ahead.

49:15:49 CC Could you turn L-Band OFF and then cycle the On/Stop switch and check the results?

49:15:58 P I've already done that and the logic is correct. The On/Stop switch, that's fine, Al.

49:16:03 CC Roger. I understand it functions with the L-Band OFF.

49:16:06 P Affirmative.

49:16:32 P Houston, Gemini XI.

49:16:35 CC Go ahead, Gemini XI.

49:16:37 P Al, we're still playing and I just turned the L-Band OFF and everything works okay now. Could it be the temperature of the L-Band?

49:17:08 CC Gemini XI, Houston.

49:17:09 P Go.

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49:17:10 CC Roger. We checked the temperature and it's 58 degrees which is normal.

CARNARVON

49:25:31 CC Gemini XI, Carnarvon.

49:25:32 C Go ahead, Carnarvon.

49:25:35 CC You can go ahead and start your fuel cell purge.

49:25:38 C Okay. I have a question. I don't understand how we can do the Non Spun Up Stationkeeping and this L-Band exercise at the same time.

49:25:48 CC Okay. Stand by.

49:26:16 CC Give me the Mark when you start the purge.

49:26:17 C Okay. We're getting ready.

49:26:22 C All right. Hydrogen on Number 1.

49:26:27 CC Roger. And I've got a sunrise time for your Tether Exercise.

49:26:31 C Shoot.

49:26:32 CC 49:49:47.

49:26:53 C Okay. We had a DELTA-P light on the hydrogen for the first time.

49:26:57 CC Roger.

49:26:59 C Yes. We're getting it on the other one ...

49:27:03 CC Yes. We see it on the ground.

49:27:26 C Oxygen on 1.

49:27:29 CC Is the Crossover OPEN?

49:27:32 P Yes. It's OPEN.

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- 49:27:41 C Okay. Carnarvon, be advised that right ... I turned off the Auto and Manual Retro circuit breakers, Retro Sequence Control 1 and 2. Attitude Indicator Retro circuit breaker is OPEN. That leaves me three switches to go to jettison the tether. That's a configuration we'll start in.
- 49:28:02 P Excuse me, I have RCS Squibs 1 and 2 OPEN also.
- 49:28:06 CC Roger.
- 49:28:16 CC On that L-Band problem you had in commanding, did that happen about the same time that you had that Electronic Timer circuit breaker OFF?
- 49:28:24 C Yes. That's possible.
- 49:28:27 CC Okay.
- 49:28:29 C I apparently knocked it OFF when I was in the back stowage box - -
- 49:28:33 CC Roger.
- 49:28:37 C - - and it was OFF about 4 or 5 minutes.
- 49:29:41 CC Gemini XI, Carnarvon.
- 49:29:42 C Go ahead.
- 49:29:44 CC What do you think the problem is, Pete, in performing that L-Band test at the same time that you Spun Up?
- 49:29:51 CC Non Spun Up.
- 49:29:53 C They say to fly in front of it at 20 feet and if we're going to - do you want to try and just do it once we get undocked? Is that the idea?
- 49:30:03 CC Yes.
- 49:30:07 C Okay. The 20 feet was confusing me.
- 49:30:10 CC Okay.
- 49:30:18 CC Roger. After you've undocked, turn the Radar OFF as you're moving out.

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49:30:24 CC That's turning it ON at 20 feet.
49:30:26 C Okay.
49:30:29 C Okay. Oxygen done in Number 1. Going on Number 2.
49:30:32 CC Roger.
49:31:16 CC 1 minute to LOS.
49:31:17 C Roger.
49:31:23 CC And we'll see you tomorrow morning.
49:31:25 C Okay.
49:31:35 C Pretty nice day today, Bill. You guys look great from 750.
49:31:39 CC You'd better bring the pictures back!
49:31:40 P Yes. We've got them, I hope.
49:31:58 C Go have a ... for me, will you?
49:32:01 CC I sure will, and in fact I might bring you guys back a couple.
49:32:04 C Yes. I'd appreciate it.

HAWAII

49:50:45 CC Gemini XI, Hawaii.
49:50:46 C Roger, Hawaii. This is Gemini XI, and we've undocked from the Agena ...
49:50:50 P The Agena is at an Inertial Attitude; pitch down 30 degrees below level vertical and we're pulling out the tether.
49:50:57 CC Okay.
49:51:35 C We sort of upset the Agena a little bit with the tether - when we undocked and he's sort of stabil-

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izing back into his attitude again.

49:51:45 CC Okay.

49:51:47 C Into his attitude again.

49:51:52 C The tether is not flopping at all and is maintaining tension very nicely.

49:51:54 CC Copy.

49:51:57 C I just came on with the radar and I don't have any lock. I came on with the radar ...

49:52:04 CC Okay. Why don't you go off with the radar.

49:52:12 C Okay. Radar's OFF.

49:52:13 CC Okay. Turn your Encoder OFF.

49:52:14 P Encoder's OFF.

49:52:16 CC Okay. I'm going to command SPIRAL ANTENNA from the ground.

49:52:18 C Roger.

49:52:25 CC Okay. We're cycling here. Let's hold it there for a minute. Let's hold it.

49:52:42 CC Okay. Do you want to turn your Encoder ON?

49:52:45 C Okay. Encoder coming ON.

49:52:48 CC And turn on the radar.

49:53:04 C This figure is starting down a little bit poorly for the End Spun Up because I just got to the end of the tether ...

49:53:34 CC Roger.

49:53:35 C Okay. It's hung up in the bag now. We didn't get it all out. We only got about 50 feet out, and I jerked it a little bit. We'll try it again.

49:53:44 CC Okay.

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49:53:47 C This is really weird!

49:53:49 CC I'll bet.

49:53:50 C Really weird!

49:53:51 CC Have you got your OAMS cut off for this exercise?

49:53:56 C Say again? What is it?

49:53:58 CC 10 percent.

49:53:59 C Roger.

49:54:21 CC That 10 percent will give you enough for the rest of the Flight Plan and your experiments.

49:54:25 C Okay.

49:55:00 C Okay. We've got it ...

49:55:03 CC Say again?

49:55:04 C We got it coming out free, the rest of the way.

49:55:22 CC How about having Dick send ACQ LIGHTS ON and ACQ LIGHTS OFF.

49:55:26 C Say again?

49:55:29 CC How about having Dick send ACQ LIGHTS ON and ACQ LIGHTS OFF.

49:55:31 C Okay. They're ON.

49:55:33 CC Okay.

49:55:36 P They came on and they went off, but I have no MAP.

49:55:47 CC Both ways?

49:55:49 P I have no MAP.

49:55:52 P Affirmative both ways. No MAP, but I do get the ACQ light.

49:55:59 CC Okay.

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49:56:02 P We're 10 feet from the end.

49:56:37 C Oh, man, I really upset the Agena! I haven't got the end on the swivel yet. I hit it very lightly and it just barely upset the Agena. So I'm not even going to be able to start the Non Spun Up.

49:56:56 CC Okay. We copied that.

49:56:58 C The Non Spun Up.

49:57:07 C I see what's the matter; it's ON on the handle - the right-hand hold handle.

49:57:24 CC Okay, Gemini XI. If you feel like you can't do the Non Spun Up business and you want to start the Spun Up Exercise, you can have at it.

49:57:30 C We have already passed the point of doing the Non Spun Up.

49:57:35 CC Okay. At your discretion then.

49:58:44 CC Gemini XI, Hawaii. Don't forget the ACS OFF command before the spin.

CALIFORNIA

50:00:03 C Gemini XI, Hawaii.

50:00:07 CC Gemini XI, this is Houston. Go ahead.

50:00:10 C Okay. Houston. This thing is harder to handle out here. I'm going to try and spin it up. I can't get it off the handle.

50:00:18 CC Roger. Is your ACS off at this time?

50:00:21 C Say again.

50:00:25 CC Is your ACS off at this time?

50:00:26 C It is.

50:00:27 CC Roger.

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50:00:47 C Could you see if our ACS is OFF ...
50:00:51 CC We'll check on it, Gemini XI.
50:00:56 C Al, I'm not getting any MAPS.
50:00:58 CC Roger. And we're not going to get any data until Texas.
50:01:13 CC Gemini XI, Houston. We'd like to recommend that you stand by until over Texas where we can verify ACS OFF.
50:01:18 C Roger.
50:01:21 C ...
50:01:28 CC Roger.
50:01:55 CC Gemini XI, Houston. Do you still have lock-on?
50:01:57 C No. We never had a Lock-on light.
50:02:02 CC Roger.
50:02:04 C We never had a Lock-on light.

GUAYMAS

50:03:14 P Houston, Gemini XI.
50:03:15 CC Go ahead, Gemini XI.
50:03:16 P The nylon tether is completely free at this time.
50:03:20 CC Roger.
50:03:22 P It's not stuck to the handle or the docking ...
It's holding up at two attach points.
50:03:28 CC Roger. We show your radar locked on to the Agena,
but apparently the Agena information isn't getting back to you.
50:03:35 P No. It must have because I can't send the ACQ

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LIGHTS ON and OFF.

- 50:03:39 CC Roger.
- 50:03:41 P Now I lost them because - I don't even think I'm going to be able to get it started spinning. I had the ACS OFF, I guess, and got some rates into it and I'm having a hard time Stationkeeping on it. I can't really psych out what's going on.
- 50:03:58 CC Roger.
- 50:04:25 CC Gemini XI, Houston. Suggest you turn ACS back ON at this time. That would be Command 401.
- 50:04:33 P Roger. I'll check it.
- 50:04:35 CC Roger.
- 50:04:39 CC Stand by to turn it off when we get some more information - get data at Texas.
- 50:04:43 P Roger.
- 50:04:51 C Yes. We've been having some motions from the ground going by. The tether is whipping around us and I'm really having a hard time figuring out who's on first.
- 50:05:00 CC Houston, Roger.
- 50:05:01 C I hit the end of it a couple of times inadvertently. It has a big bow in it, but all of a sudden, the next thing you know, you're at the end of it.
- 50:05:30 CC Gemini XI, Houston. We indicate that your ACS is ON. You can send ACS OFF, Command 400, when you're ready.
- 50:05:41 C Roger. I understand.
- 50:06:47 C I just got to turn on the tape. Now the tape's ON. Here we go. Now wait a minute. Come ahead.
- 50:07:00 C Roger.
- 50:07:01 P Turn it up some.

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50:07:03 C ... 50:07:00.

50:07:04 P We're coming in; we're coming in.

50:07:12 P Wish you could get that tight so I can take a picture.

50:07:18 C Well, I got myself ... pretty good right now.
Whoops!

50:07:21 P Who?

50:07:22 C See that?

50:07:23 P It's still slack.

50:07:24 C Yes, I know, but it starts to take it out.

50:07:29 P Ought to take it out somewhere along the line.

50:07:32 P The Agena's inertial. It isn't going to do much.

50:07:51 C This tether's doing something that I never thought it would do. It's like the Agena and I have a skip rope between us and it's rotating and making a big loop. And I have things pretty well under hand now and it looks like we're skipping rope with the thing out here.

50:08:11 CC Roger. We still indicate on the ground that the ACS is on.

50:08:15 C Yes. I was just trying to get to the end of the tether.

50:08:18 CC Roger.

50:08:24 C I'm getting there slowly.

50:08:27 CC Roger.

50:08:29 P The loop is getting smaller and smaller.

50:08:54 C There it is.

50:08:56 P Not quite.

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50:08:58 C Let me see - it's pulling me in. It's got - it's got tension in it even when it's spinning. Did you see what's happening? Did you see it?

50:09:04 P Did that - did that pull you in?

50:09:07 C Heck yes! I didn't touch a thing.

50:09:10 P Now lean against it just before it pulls you in. Lean against it so it can't.

50:09:11 C Look what it's doing! Man! Have we got a weird phenomenon going here. This will take somebody a little time to figure out. The tether is still doing this spin, like I said. That's the reason I can't get the end of it because it keeps a bow in it while it's spinning and it has tension in it.

50:09:38 CC Roger.

50:09:39 C I can't get it straight.

50:09:58 P Got it now.

50:10:04 C Now what I have to do is roll 180.

50:10:11 CC Gemini XI, Houston. We have indicated you've used approximately 40 pounds of fuel. Could you give us a PQI reading if possible?

50:10:19 C Roger. 22 percent.

50:10:22 CC Say again.

50:10:23 C Roger. It's 22 percent. 22.

50:10:27 CC Thank you.

50:10:34 C Okay. Stand by to - -

50:10:36 P To what?

50:10:38 C - - to send the ACS OFF. I got - the way you spin up is backwards.

50:10:44 CC Gemini XI, Houston. The consensus here is you'll never be able to get the spin in the tether out by

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applying tension to it. Using your own judgment, if you desire, you can initiate the tether - I mean ... to initiate the spin from this point.

50:10:59 P Roger. It's down right now and we're getting in position to do the Spin Out Stationkeeping. It's out of it.

50:11:05 CC Good from this point.

50:11:10 P Boy, How much fuel does that take you?

50:11:12 C 10 seconds aft and down and that's it.

50:11:15 P What are they going to say whenever I send ACS ON?

50:11:22 C Yes. We're trying to fly upside-down on it.

CAPE

50:11:34 C Houston, Gemini XI. Watch it and let me know if I get ACS OFF in there.

50:11:38 CC Roger.

50:11:42 P When do you want me to send it?

50:11:44 C Wait a minute.

50:11:49 E I'm trying to get on top of him here.

50:11:59 P Do you have those switches ready to go?

50:12:01 P Yes.

50:12:03 P Well, figure out which ones they are.

50:12:05 P Well, the Retropower and that one.

50:12:07 C Okay. The Jettison switch. I'm getting into position now.

50:12:41 CC Gemini XI, Houston. We still show ACS ON here.

50:12:43 C Roger. We are just getting up on it right now.

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50:12:46 C Man, this is no easy job!

50:12:51 C Okay. Are you ready?

50:12:52 P Yes.

50:12:53 C ACS OFF.

50:12:55 P Is ACS OFF?

50:12:56 C 10 seconds.

50:12:58 CC Roger. We confirm it OFF.

50:13:00 C Roger. Thank you.

50:13:03 P What's your attitude?

50:13:05 C Listen. I've got it OFF.

50:13:06 P Oh!

50:13:08 C Well, we've started.

50:13:10 CC Roger.

50:13:12 C ...

50:13:13 C Yikes!

50:13:17 CC Gemini XI, Houston. Do you have tension in the cable at this time?

50:13:19 C Drag it in. As soon as I backed off and down, it stopped. I have a lot of slack in it.

50:13:29 P The darnedest thing I've ever seen.

50:13:31 C This is not going to work.

50:13:41 C As a matter of fact - well, I'll wait and see. Hang on. Here goes the jerk. Bong!

50:13:51 P That's too much.

50:13:59 C Gosh! The tension must be extremely light because we can hardly even feel it, but we did hit the end

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again. So, by golly, we are oscillating.

50:14:03 CC Houston. Roger.

50:14:15 P Okay. He's going over on your side.

50:14:17 C Keep your eye on him.

50:14:19 C (Laughter)

50:14:27 C I'll tell you what though, unless this thing settles down a little bit more, I'm going to whistle over on the night side this leg. Our yaw angle to them is about 35 degrees to either side at this time.

50:14:35 CC Roger. Did you put full thrust down - to initiate?

50:14:42 P Either side, right now.

50:14:48 C Although it seems to be settling down.

50:15:01 CC Dynamics Guidance.

50:15:05 C We are spinning, after a fashion. As best I can determine, we have spun-up about 45 degrees out of the Orbital Plane.

50:15:17 CC Houston. Roger.

50:15:21 C Are the Running lights on?

50:15:23 P Yes, they are on.

50:15:29 C Al, check and see if I have any of the Running lights on? I think I do.

50:15:36 CC Roger.

50:15:41 P Shucks! I can't see them.

50:15:43 C I can't either.

50:15:51 P I don't see any nylon either.

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ANTIGUA

50:15:53 CC Gemini XI.

50:15:58 C There's tension on it. It's sliding down. Here he comes back into view again, I think. Yes, I've got him.

50:16:05 CC Gemini XI, Houston. You're Running lights are on. We show you at approximately 200 pounds of propellant remaining.

50:16:12 C Roger.

50:16:24 P Shucks!

50:16:29 C Actually, I'm quite surprised. We had a great deal of slack in the tether when we stopped firing, or right after we stopped firing. Now we have some pretty wild attitudes with respect to one another and we have lost sight of them a time or two. But the tether seems to be - have constant tension in it, like we really are spinning.

50:16:51 CC Roger. Can you give us a PQI?

50:16:53 C It looks like about 21 percent.

50:17:00 P Man, I don't know about going on the night side with this thing.

50:17:05 C No, I have him in sight now.

50:17:10 P What are you going to do when you don't get him in sight and your Docking light isn't over there?

50:17:12 C Yes.

50:17:17 C Well, if he stays taut all the time, that would be all right. You know I kind of have the feeling things are damping out a little bit. Don't you?

50:17:22 CC Gemini XI, Houston. We show you 27 minutes from sunset.

50:17:28 P Yes. I don't know what direction he'd be going.

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50:17:31 C I don't either.

50:17:41 P Where does the general purpose magazine go?

50:17:43 C In the box.

50:18:10 C How is he doing out there?

50:18:11 P Tight.

50:18:12 CC Gemini XI, Houston. Can you give us your feelings on how your status is progressing now?

50:18:15 C Roger. It is really settling down. The attitudes have, but we apparently have constant tension in the tether. We have only lost sight of it once.

50:18:29 P I still have it.

50:18:30 C What he is doing is - we would up so that our motion is mostly at yaw. And he is yawing to about 30 or 35 degrees on either side of us. We have rolled about 90 degrees to him right now and the tether is maintaining tension at all times. I'm impressed. I didn't figure it would, when we first started.

50:19:00 CC How do you feel now about going into sunset and Spun Up?

50:19:03 C I think we will go ahead. We will press on. There must be some damping in that - in the tether - because we had to give 6 feet of slack right after I let go of it. It may be that there is some elasticity to the tether.

50:19:23 CC Roger.

50:19:27 C Things are calming down considerably. I believe that we are damping.

50:19:36 CC Houston. Roger.

50:19:49 P Did you hit the recorder?

50:19:51 C (Laughter)

50:19:53 C Man, I wouldn't have given you a nickel for this

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thing at the start, would you?

- 50:19:55 P No. It sure looked like it was off.
- 50:19:58 C Hang on. Here it goes over the top. Whee!
- 50:20:17 P They got that clamp on there good and tight, I'll tell you that.
- 50:20:19 C I bet there's not much tension in the line.
- 50:20:29 C What would you say that was, 35 degrees; 45 degrees?
- 50:20:31 P What? Pitch-up? 45 degrees of axis.
- 50:20:34 C He seems to be relatively stable to the tether, doesn't he?
- 50:20:38 P Yes.
- 50:20:53 P Look at that! I can't understand it.
- 50:20:56 C It's going every which direction.
- 50:20:58 P Listen, somebody can sort that out later. I can't --
- 50:21:05 CC Gemini XI, Houston. 30 seconds from LOS.
- 50:21:07 C Roger. We'll press on. We've got a lot of tension. Now here goes the ... is going into our nose now. We've got a lot of tension. Good steady tension. I can't even see it oscillating. Looks like we've got a good spin going, so that it is going to hold it.
- 50:21:22 P Do you see him?
- 50:21:24 CC Is it still 40 degrees or so out of your Orbital Plane?
- 50:21:29 C The Agena movement, with respect to the tether, is very low. But the Gemini motion, with respect to the tether, is the one - we're the ones that have all the motion, it seems to me. We're doing the 40 degrees plus or minus. Right now we are just about still at climb of 40 degrees or so to the

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Orbital Plane. I can't really tell. We are rolling a little bit too.

- 50:22:12 C We do have the Running lights on, you say?
- 50:22:15 P Yes.
- 50:22:17 C It's been a big day, I'll tell you. I've got this - gangbusters. Boy, I didn't think it was going to start, did you? How about me making me some food or something?
- 50:22:39 C What have you got there? Peaches are good.
- 50:22:46 P I hope. Yes.
- 50:22:51 C This is pretty darn interesting. That line after the first wing-ding didn't - hasn't gained a bit of tension in it or slack.
- 50:23:03 P Now we're putting a little motion on it. Going around by him.
- 50:23:08 C Yes. But his - his motion - look at his angle. It's only 20 degrees, right?
- 50:23:12 P Yes.
- 50:23:13 C Ours is the one with the big angle.
- 50:23:17 P Listen, I'll croak if this whole thing damps out when we get down to real low rates. Right?
- 50:23:31 P Yes.
- 50:23:32 C I only lost him once.
- 50:23:43 P Darn thing is in two parts.
- 50:23:46 C Are those good?
- 50:23:48 P What else do you want?
- 50:23:51 C I'll eat anything I'm so hungry. The first time I've had a chance to think about something else for 5 hours.

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50:24:03 C I'll sleep tonight!

50:24:05 P Now you're on the back side of the curve. 18 hours to Retrofire.

50:24:17 C I wish I was getting untangled from this big bear.

50:24:19 P Yes.

50:24:22 P Boy, 3 more hours of that!

50:24:23 C Right now I don't feel so bad about powering down on the Maneuvering Controller and - I'll tell you what, I'll leave the Maneuvering Controller ON and just turn off the OAMS switch. How's that?

50:24:34 P Roger.

50:24:36 C Somebody's calling Gemini XI.

ROSE KNOT VICTOR

50:24:55 CC Gemini XI, RKV CAP COM.

50:24:58 C Hello RKV, Gemini XI here. Everything is going okay.

50:25:00 CC Roger. We would like to know what the period of Spacecraft oscillation is, if you have any estimates.

50:25:08 C Well, it started out with the rates around - I didn't get the oscillation, but the rates were about 1 degree per second going out and they're down. I would say they are down to 1/2 degree per second. The whole thing is beginning to stabilize pretty well.

50:25:27 CC Say, real good! Mighty fine! Glad to hear that!

50:25:34 CC Would also like to know if you got an indication of the Analog Range or Range-Rates?

50:25:48 C The Analog is showing 00 300,000.

50:25:55 P What is the digital showing?

50:25:58 C 2/10ths of a mile or - -

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50:25:59 CC Roger. Copy 00 300,000.

50:26:03 C - - Say again, RKV.

50:26:05 CC Roger. I copy 00 300,000.

50:26:10 C Yes. Both the Range-Rates are 0 and the Range Needle is too, blocked at 300,000 feet.

50:26:17 CC Okay. Very good. Thank you.

50:26:19 P Digital Range is 120 on the computer.

50:26:24 CC Digital Range 120 on the computer?

50:26:29 P That's affirmative.

50:26:36 C Say, I have a question for them in Houston. Would you tell them that we have been using the 16mm movie camera with an 18mm lens in it and I have gotten about - well, I got all of this - the camera has been on all the time - and I was wondering if they want us to change to a 75mm lens, or keep on with the 18.

50:27:03 CC Roger. We will check with them.

50:27:07 C This has gotten to be downright nice.

50:27:11 C Why don't you turn the tape off now unless we get something unusual going.

50:27:29 CC Gemini XI, RKV. Stay with the 18.

50:27:34 P Okay.

50:28:21 CC Gemini XI, RKV. We'd like to know if you could estimate how long it really takes you to go from peak-to-peak on your oscillation.

50:28:31 C Okay. We'll start telemetry statistics here in a minute.

50:28:36 CC Okay.

50:29:35 C RKV, Gemini XI.

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50:29:37 CC Go, Gemini XI.

50:29:39 C Roger. The oscillations seem to be a little bit random. We keep getting coupled into different axes and it's rather hard to sort them out. We also figure there is probably some fuel sloshing around in the Agena, maybe, which is doing it.

50:29:58 CC Roger. Copy.

50:30:29 P We've got half an oscillation for about 50 seconds.

50:30:33 CC Copy. Half an oscillation in about 50 seconds.

50:31:31 CC Gemini XI, RKV. We have about 1 minute to go.

50:31:35 C Okay. We'll press on.

50:31:37 CC Roger.

50:32:07 CC We'd like to know if you can estimate your rotation rates. They'll pick this information up over Ascension or Tananarive.

50:32:15 C Say again?

50:32:17 CC They'd like you to know - to know if you can estimate your rotation rates. They'll pick you up over Ascension or Tananarive.

50:32:32 C All right, I'll take that - well, we'll give her a try, but we can get coupled up so closely, I can't really tell which way we're spinning.

50:32:41 CC Okay.

ASCENSION

50:33:03 CC Gemini XI, Houston. We're standing by for your estimate of your rotation rate.

50:33:09 C Do you want the spin rate we have?

50:33:18 CC Gemini XI, Houston. Say again?

50:33:21 C I - I'm having a hard time pointing it out, Al.

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I'm very low. Rotation - two-vehicle rotation is very low.

50:33:33 CC Houston. Roger.

50:33:39 C A piece of ground going by. The Orbital Plane is really fouled up. It's very hard to split this out.

50:33:49 CC Roger.

50:33:57 CC Gemini XI, Houston. Our ground information indicates from Agena that it's about 40 degrees per minute.

50:34:09 C 40 degrees per minute. Okay.

50:35:47 CC Gemini XI, Houston. 30 seconds to LOS.

TANANARIVE

50:45:42 CC Gemini XI, Houston. We're standing by.

50:45:46 C Roger. Everything is going just fine.

50:46:05 C Houston, Gemini XI.

50:46:08 CC Go ahead, Gemini XI.

50:46:10 C Roger. The Gemini is rolling at about, oh, 2/3rd's of a degree per second and the highest pitch and yaw rates that we're seeing right now, when they couple, are also about 2/3rd's of a degree per second.

50:46:32 CC Houston, Roger. 2/3rd's of a degree per second in both cases.

50:46:53 C The fact that the tether is on the docking bar, offset from the CG, is advantageous to us in that the Agena motion is staying out in front of our windows all the time. Therefore, we have very seldom lost sight of it.

50:47:18 CC Roger. For your information, if you want to use

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that 75mm lens, you should hand-hold the camera.

- 50:47:27 C Okay. I don't think that will be necessary. We've got good pictures and the 18 will give you a wider field of view. I've got one roll magazine at 1 frame per second now and I plan to run another one on the next day pass.
- 50:47:40 CC Roger.
- 50:49:23 C We are going into the Night Test on the tape recorder. We have no roll-rate and we have 1.2 degrees per second on yaw, maximum. Just coming to a little roll slightly. The vehicle - our attitude is dropping half of what it was at the beginning of this thing. Now we are oscillating about 20 degrees.
- 50:49:48 P Think so?
- 50:49:49 C I won't say any more than that. That's all the antenna was off the nose.
- 50:49:54 P Yes.
- 50:49:55 C We have the Docking light on which shows us the tether. We can see the Agena Running lights very well. We can see the Agena nose cone very well.
- 50:50:07 P Since we first started we have not lost sight of the Agena at all. It has been relatively easy to keep it in view. Don't even have to go to the window.
- 50:50:14 C I think that's due to the off-set of the Agena, don't you?
- 50:50:18 P Probably it keeps us tipped down a little bit.
- 50:50:22 C It also keeps the Agena pitch down to us.
- 50:50:24 P Yes.
- 50:50:29 P ...
- 50:42:43 CC Gemini XI, Houston. We're about 1 minute from LOS.
- 50:52:49 C Roger, Al. We're settled down here pretty well,

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as a matter of fact. We might just go to sleep on this one.

50:53:00 C As matter of fact, I think I will.
50:53:03 CC Roger.

COASTAL SENTRY QUEBEC

51:10:30 CC Gemini XI, CSQ.
51:10:34 C ...
51:10:36 CC Roger. Could you give us a readout of Address 35?
51:10:41 C ... 09
51:10:52 CC Say again, please, Gemini XI.
51:10:54 C Roger. Schedule 35 is reading 09999 which is a bunch of garbage. Over.
51:11:02 CC Roger.
51:11:06 C According to our radar in here, we tried to lock intermittently for a short period of time - about 20 minutes ago and 10 minutes ago - and I've come to the conclusion that we must have had some sort of failure in our on-board radar. Could you confirm that?
51:11:29 CC Stand by. I'll check.
51:11:46 CC Gemini XI, CSQ.
51:11:48 C Go ahead.
51:11:49 CC They seem to feel that it's in the Agena transponder.
51:11:53 C Okay. Now the Agena is up and to our left and the radar shows that it's up. The elevation shows that it's down. Apparently we have some sort of information going through our radar ...

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51:12:17 CC Roger. Copy.

51:14:45 CC Gemini XI, CSQ.

51:14:47 C Go ahead.

51:14:48 CC Okay. Houston would like you to use a pencil or something to see if you can establish any g-field effect.

51:14:56 C Okay.

51:14:58 CC And, also, they are going to talk to you over Hawaii about possibly setting up a higher rate.

51:15:05 C We have been trying to. No effect.

51:15:26 CC Gemini XI, we've got about a minute to LOS.

51:15:28 C Roger.

51:15:29 CC You're all GO down here on the ground.

51:15:32 C Thank you.

51:15:34 C We're GO up here, too.

51:15:36 CC Roger.

HAWAII

51:26:27 CC Gemini XI, Hawaii.

51:26:29 C Go ahead, Hawaii.

51:26:31 CC We'd like to get an Agena tape dump, so if you'd turn your Encoder OFF, we'll try to get that.

51:26:36 C Roger. Would you advise Houston that this thing is stabilized almost completely. The Agena-Gemini oscillations are almost all being done, except in roll, and it's sticking right straight out our nose on the end of a tight tether in a very nice slow rotation.

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51:26:59 CC Very good.

51:27:01 C I wouldn't have believed it 2 hours ago.

51:27:33 C We're slowly getting aligned through our CG so that the Agena is upside-down to us, the way we started out.

51:27:43 CC We copy that.

51:27:46 C And it is rolling very slightly. We can, every once in a while, see a slight sine wave come up the tether, and I suspect that it may be some fuel in the Agena still sloshing a little bit, ever so slightly.

51:28:05 CC Okay. I'm going to send you a T_X .

51:28:11 C Okay.

51:28:12 CC We have to back up our tape dump we're getting on you. Another thing, Pete, we'd like to uplink a T_R and also a load; that is 45-1. We'd like to check out your computer.

51:28:22 C Okay. Want us to go PRELAUNCH?

51:28:24 CC Affirmative.

51:28:39 C Computer is in PRELAUNCH.

51:28:41 CC Roger.

51:28:48 CC How about that? We've got it in sync again.

51:28:51 C Okay.

51:28:55 CC Here comes your load.

51:28:59 C Well, that was what you were supposed to do, wasn't it?

51:29:02 CC Right. I thought it would keep your fingers away from the Electronic Timer circuit breaker.

51:29:08 C Very sorry about that, but I was upside-down in the stowage box when it happened.

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51:29:13 CC Okay.

51:29:23 C We're going to have to do a little hustling in here today to get everything done.

51:29:27 CC We copy that. Understand you've been trying to spin it up a little faster.

51:29:32 C Negative. We just got stabilized. I haven't - since I let go of the dump back over the States, the very first time - I haven't touched a thing. I'm powered to Gemini now.

51:29:43 CC Okay. How do you feel about, oh, trying to spin her up a little bit more?

51:29:48 C I don't know. What'll it prove? We're nice and stable and steady, Stationkeeping right now. We do get a little artificial gravity out of it. We can stick a camera or something up against the bulkhead and it floats back in the direction of the tether every time.

51:30:05 CC Okay.

51:30:09 C I think all we'd do is waste fuel and I'm sure that it would be damped.

51:30:15 CC What have you got on Prop Quantity?

51:30:20 C Looks like about 19 percent.

51:30:32 C Another thing is I'm not sure how much line it's going to need to de-spin this thing. I'd just as soon not shoot a bucket getting all wound up and not have anything in my hip pocket to get unwound.

51:30:45 CC Okay.

51:31:19 CC Gemini XI, Hawaii.

51:31:21 C Go ahead.

51:31:22 CC Okay. We'd like to know how you feel about adding about a foot-per-second burn in there to see if you can spin-up any faster.

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51:31:29 C Okay. We'll give her a go whenever you say.

51:31:35 C How long do they want us to apply the lateral thrust? How many seconds?

51:31:45 CC Okay. I'll let you know in a minute.

51:32:19 CC Gemini XI, Hawaii.

51:32:23 C Go ahead, Hawaii.

51:32:25 CC Okay. As far as stopping the spin, what they feel you should do is probably just jettison the bar and that'll give you about 1 or 2-feet-per-second separation.

51:32:39 C What are you saying?

51:32:41 CC Rather than just trying to stop the spin, just jettison the index bar.

51:32:49 C You want us to just jettison the index bar when we're ready to separate?

51:32:54 CC That's the feeling at Houston.

51:32:57 C Okay. You want us to spin-up higher? Is that correct?

51:32:59 CC Okay. With that 3-second burn, is what they were thinking about.

51:34:19 CC Gemini XI, Hawaii.

51:34:21 C Go ahead.

51:34:22 CC Okay. You can go back to NAV if you want to.

51:34:24 C Okay. I didn't get your last. You want us to spin-up higher? Is that correct?

51:34:28 CC Roger. 3-second burn.

51:34:30 C Okay.

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CALIFORNIA

- 51:37:16 CC Gemini XI, Houston.
- 51:37:17 C Go ahead.
- 51:37:19 CC We've got a Pre-Phase Maneuver Update for you when you're ready to copy.
- 51:37:25 C You guys are full of all good things, man. We're trying to spin-up faster. Okay. We're ready to copy.
- 51:37:36 CC Okay. The GET of B is 53:24:55; Delta-V, 9.3; Address 25, 00055; Address 26, 90075; Address 27, 00000. You'll be using your Forward-Firing Thrusters and the maneuver will be Posigrade and up. You'll perform this maneuver in COMPONENT. Prior to the maneuver, Aline your Platform BEF and get a good solid Stationkeeping position with the Agena. The pitch attitude is included. Take advantage of some network tracking. Over.
- 51:38:46 C This is Gemini XI, ... 53:24:55; Delta-V, 9.3; Address 25, 00055; Address 26, I didn't get; 27 is all zips; Forward-Firing Thrusters; Posigrade up. Aline Stationkeeping and do it peachy-keen. Give me Address 26.
- 51:39:10 CC Roger. 26, 90075.
- 51:39:16 C Roger. Understand 90075 ...
- 51:41:43 C We're standing by to spin-up faster now. They want us to fire the docking bar to get off them. I think that's ridiculous. ...
- 51:41:55 C Oh, the sun is shining right in the bottom of that reflector, right on the top of my head. It's about to burn a hole in it.
- 51:42:02 C All right. We are almost there. Are you ready?
- 51:42:04 P Yes.
- 51:42:06 C Get set, GO.

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51:42:09 P Pass it down, why don't you. Oh shucks!

51:42:12 C It's okay. It's okay.

51:42:15 P Oh, look at the slack!

51:42:17 C That's what I was afraid of, darn it.

51:42:21 P Look at all the slack!

51:42:26 P Oh shucks! Here we go!

51:42:32 C Dumb men wouldn't listen to me. That's all on the tape too.

51:42:41 C Hang on.

51:42:42 P It's going to jerk this thing all to heck.

51:42:45 P It's going to do the same thing. It's going to just start all over again.

51:42:48 C Oh, look at that! Sure is going to blow that docking bar fast.

51:42:53 P Okay. Power.

51:42:55 C Retropower ON.

51:42:57 P Okay. That's all in the jet - oh man, I won't be able to see this thing when I look out.

51:43:04 C Hello, Houston.

51:43:05 CC Gemini XI, Houston. Standing by.

51:43:06 P You just ruined a good thing.

51:43:08 P You just ruined a good thing.

51:43:14 C I can't see.

51:43:15 CC What does it look like now, Gemini XI?

51:43:17 C It's wild and we had it nice and steady.

51:43:21 P Give me that camera.

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- 51:43:43 C We've got about a 60-degree attitude change on him and the tether went very slack and we banged out the end of it.
- 51:43:54 C Oh man! Did you see what that did to the Agena?
- 51:43:57 P What did it do?
- 51:43:59 C Oh man!
- 51:44:00 CC Are you getting oscillations in yaw and pitch both?
- 51:44:02 C We've got oscillations everywhere.
- 51:44:09 C How does it look down there? Kind of tame, I bet.
- 51:44:19 P This thing is going to damp out here in a little bit.
- 51:44:21 C I suspect that it will damp. But it sure is wild.
- 51:44:29 CC Are you all skipping the rope up there now?
- 51:44:31 C No, we've got the tether tied again. The attitudes are pretty good on both the Agena and the Gemini.
- 51:44:39 CC Roger. Well, everything is okay down here. We are all on the end of these 3-foot ropes.
- 51:44:43 C Thanks.
- 51:44:48 C Yes. That is something nobody thought about, but, by golly, if you spin a rope and pull it tight, it applies tension and that is exactly what is happening to us and why we couldn't get started right away. It got back off. The rope would spin faster and get tension in it and then it would jerk the Agena.
- 51:45:16 C What time is our next sunset?
- 51:45:21 CC Wait.
- 51:45:28 P I think we ought to give that control back to the Agena.
- 51:45:36 C Yes. That's going to damp, by golly.

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51:45:38 P It will take a little while, though.

51:45:45 P The rates are higher than we have seen them before - 2 degrees per second right there.

51:45:50 C What would happen if I damp some of it?

51:45:51 CC Gemini XI, Houston. About 28 minutes. 52:13.

51:45:52 P I don't know; try it. Yaw right.

51:45:55 C Let me just try it in PULSE.

51:46:00 P When the tether's taut.

51:46:02 C Is it taut?

51:46:03 P Yaw right.

51:46:07 P Pitch-down.

51:46:09 CC Gemini XI, Houston. Did you copy sunset time about 28 minutes?

51:46:14 C Okay. I'll tell you what I'm doing right now. I'm in PULSE and I am trying to damp the Gemini rates a little bit.

51:46:22 CC Roger.

51:46:24 P Where is he?

51:46:25 C Is the tether taut?

51:46:26 P He's okay.

51:46:27 C Okay.

51:46:39 CC Gemini XI, Houston. We're just about to LOS.

51:46:45 C I think that has had a decidedly beneficial effect on the whole thing, don't you?

51:46:49 P Yes.

51:46:50 C I think we - I think he peek-a-boooed it a little bit.

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51:46:54 P It seems to have.
51:46:56 P Watch it there.
51:47:17 P Where?
51:47:18 C Just blinked on.
51:47:20 P It worked.
51:47:21 C How about that?
51:49:21 C ...
51:49:24 P Can't waste any of these.
51:49:26 P I need a little help.
51:49:27 C Okay.
51:49:28 P Take those out for me, and then you can have that back again.
51:49:31 C I just found the - a couple of clean towels.
51:49:43 P Yes. I've got a couple in here too. Here - -
51:49:55 P - - do this - has a glass.
51:49:57 C Is that used?
51:49:58 P Yes.
51:50:00 C Leave it right there.
51:50:02 C Either that or go in the back box. That's all.
51:50:04 P Back box?
51:50:05 C Yes.
51:50:06 P All right.
51:50:07 C Because of heat?
51:50:08 P Yes. Hold it.
51:50:09 C Okay.
51:50:12 P Get this stuff put away.
51:50:16 C Hey, that peek-a-booed it.
51:50:19 P Yes. You're right, it did.
51:50:21 C Don't tell them though.
51:50:24 C Where'd the other strap go. Darn it.

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51:50:30 C I'll put those in my pocket. You hang on to - throw them down the foot well.

51:50:35 P Put those in your pocket.

51:50:40 C Only three of them. Three used tapes.

51:50:43 P Okay.

51:50:44 C Got the other four coming.

51:50:46 P Here are two more coming.

51:50:48 C Can only hold so many things at one time.

51:50:52 C Two of those are logged, but the rest of them ought to be logged.

51:51:02 P Oh ... that makes me mad!

51:51:04 C Yes. You can't win them all. ... We got that S-13. I never thought we'd get all of those. Listen man, that Agena came through. We've got enough training under our belt to get that gosh darn stuff done in a hurry. We're really pressed for time.

51:51:30 P Where is the log book?

51:51:32 C Right there.

51:51:34 P Yes. Better log these tapes in.

51:51:38 C Okay. On the tape cartridge I used, the Tape lights just started to work on this last cartridge, for some strange reason.

51:51:48 C It helped in that the Agena has settled down again and it helped to take out the Gemini rates for pulse.

51:51:51 P Okay.

51:52:02 C Oops! That's got to go in the back locker, I guess.

51:52:16 C What country did we pass over down there? Brazil?

51:52:19 P I think so. I can't really tell from here.

51:52:37 C Gosh darn, you're clumsy.

51:52:40 P That's what we like, good old rates.

51:52:42 C Yes.

51:52:43 P Good old rates.

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51:56:27 C See that sine wave? That just does that every once in awhile.
51:56:36 P Okay, let's turn this off.

ROSE KNOT VICTOR

52:00:01 CC Gemini XI, RKV.
52:00:03 P Hello, RKV. Gemini XI here.
52:00:06 CC We're showing the Encoder as being OFF at the present.
52:00:12 P Roger. It's OFF.
52:00:14 CC Okay. You can turn it back ON.
52:00:16 P Okay.
52:00:20 CC Yes, we have it.
52:00:22 C This last pass I guess we didn't put it back ON.
52:00:24 C You can tell Houston that it got pretty wild here. So I just went back to tell them the Gemini rates and that shut the whole system down and it's real stable again. I guess we are rotating slightly faster. Can you read out on the Agena and tell us?
52:00:43 CC Roger. We'll give you a check on here very shortly.
52:00:47 CC It sounds like damping the rates on the Agena stabilizes the whole system. Is that correct?
52:00:53 P Damping the rates on the Gemini stabilizes the whole system.
52:00:58 CC Roger.
52:01:00 P But the Gemini, for some reason, always has had wilder attitude excursions at the beginning than the Agena. And it was the same way this time. The Agena stayed relatively stable, but the Gemini seemed to wind up, for some reason.
52:01:16 CC Okay.
52:01:54 CC Okay, Gemini XI. We're looking at the rates here on the ground. They're in two axes on the Agena and we're having a little problem coming up with

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anything that's different for you.

- 52:02:09 P We fired the aft about 4 seconds and the down 4 seconds or so - on this last one, - so we should have added some more to it. I can't really tell myself.
- 52:02:21 CC Roger.
- 52:04:27 CC Gemini XI, RKV. We're unable to get you anything on these rates from the ground. We'll look at the data post-pass and maybe get a better idea on it.
- 52:04:37 P Okay.
- 52:04:40 CC I'm sorry about that.
- 52:07:40 CC Gemini XI, RKV. We'll have LOS in about 30 seconds here.
- 52:07:45 P Roger. RKV. See you next pass.
- 52:07:47 CC Roger.
- 52:19:43 C Okay, the time is 52:19:47 and the Agena is stabilized and very stable on this ninth pass.
- 52:19:52 P And you might mention there is an artificial gravity field. A very strong one. It makes the camera move back to the rear of the bus very rapidly.
- 52:20:04 C What did I do with the food package. I know you're in here somewhere. You sure you don't have a food package over there that is mine?
- 52:20:13 P A silver one.
- 52:20:14 C Do you have two silver ones over there?
- 52:20:15 P No, just one.
- 52:20:16 C I always put them under my seat. It could have slipped out anywhere. ... and one life vest. Oh, here he is. There he is.
- 52:20:29 C (Singing)

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52:20:39 P Man, am I stuffed up. If the ... doctor ...
52:20:43 C So am I.
52:20:45 P ... would just let us carry a little old squirt gun
up.
52:20:47 P Afrin.
52:20:48 C Afrin or something long like I always carry in my
flight suit, so that when I get up to go, I get up
to go without having to call a National Emergency to
nine ground stations. It would be great. It's all
dry air.
52:21:00 CC Gemini XI, Houston.
52:21:03 C Hello there, Houston. Gemini XI. Go ahead.
52:21:05 CC Roger. How's it going up there, Pete?
52:21:08 C Well, I think we found the secret to success is to
damp the Gemini rates and you've got much higher
rotation than we ... they are stable large excursions
with the Earth and the whole combination settled
down and we're quite stable again. As a matter of
fact, we're eating.
52:21:32 CC Roger. We've got some information for you - for
after tether jettison. Are you ready to copy?
52:21:43 P We what?
52:21:49 P What kind of information is it?
52:21:51 CC Roger. We've got two types. Got one - a procedure
to execute the minute you jettison the tether. By
that we mean send Command 401, which is ACS ON, to
the Agena and then just as soon as possible after
that, close to a Stationkeeping position in line BEF.
52:22:12 P Okay. That was our plan, Al. We were going to wait
and when we got on the day side, pick the Agena up
on the horizon. At the same time, we were going to
go ACS ON, fire forward until we get the slack off
the tether, blow the bar, and drop the rate.

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52:22:31 CC Roger. We also have another procedure to check out - the Radar Fire 2 and doing Agena SEP. Are you ready to copy? It's about five or six steps.

52:22:42 P Hold.

52:22:44 CC Roger.

52:22:46 P Okay. We're ready to copy.

52:22:49 CC Roger. One is after you complete the Platform Alinelement, put your computer in NAV, turn on the radar and the transponder. Next, perform the Re-rendezvous Posigrade SEP burn on schedule.

52:23:23 P You are breaking up. Could you start at the beginning again?

52:23:26 CC Roger. Step One - after you complete the Platform Alinelement, put your computer to NAV and turn on the radar and transponder. Did you copy that much?

52:23:46 P Yes.

52:23:47 CC Okay. Step Two - perform Re-rendezvous Posigrade SEP burn on schedule.

52:23:58 P Roger.

52:24:00 CC Three - when you're over Hawaii, they will ask you to send SPIRAL SELECT, which is Command 270. Then they want you to boresight on the Agena for 2 minutes and send ACQ LIGHTS OFF, which is Command 250, and ON, which is Command 251. Did you copy that far?

52:24:35 P Yes.

52:24:37 CC Roger. When that's complete, go to the Platform mode. When you're over the CSQ, they will ask you to send that DIPOLE SELECT, which is Command 260. Then, they want you to boresight on the Agena for 1 minute and send ACQ LIGHTS OFF and ON again.

52:25:12 P Roger.

52:25:14 CC Now this completes the procedure and you can continue then on your normal Flight Plan.

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52:25:19 P Roger.

52:28:31 CC Gemini XI, Houston.

52:28:32 P Go ahead, Houston.

52:28:33 P Go ahead, Houston.

52:28:34 CC Roger. We're about a minute from LOS. We've been discussing your procedure for separating from the Agena. We'd like to suggest that you not get too much slack in the tether prior to the time you blow the bar. Over.

52:28:51 P Yes. Our plan is to go 401 just as soon as we have at least a little bit of slack and I'm going to jettison at the same time.

52:29:01 CC Roger. We concur.

52:29:03 P Okay.

52:29:05 P Great minds think alike.

52:29:10 C Say Al, on this Separation burn, what thrusters did you want to use on that?

52:29:16 CC Say again, Gemini XI.

52:29:18 C Thrusters on the Separation burn.

52:29:20 CC Roger. You'll be BEF and you'll be using your forward-firing thrusters.

52:29:26 C That's the BEF for firing. Thank you.

52:29:36 CC Gemini XI, Houston. I guess you'll be doing that in component.

52:32:53 CC Gemini XI, Houston.

52:32:54 C Those are tape recorders and we've never seen the bottom of the Agena all the time, even when it is rolling or anything. It is always rolling so that the tether's been through the CG and we've always seen the top of the Agena.

52:33:07 P What did you say?

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52:33:08 C (Laughter)

52:33:10 P Would you say that again, please?

COASTAL SENTRY QUEBEC

52:44:07 CC Gemini XI, CSQ CAP COM.

52:44:10 P Hello CSQ, Gemini XI. Standing by.

52:44:12 CC Roger. We have nothing for you. We will be standing by.

52:44:16 P Okay.

52:46:36 P CSQ, Gemini XI.

52:46:39 CC Go, Gemini XI.

52:46:40 P Roger. We've just been Stationkeeping around it. Everything steadies out. We have a decided impression that the Non Spun Up Stationkeeping would probably work also, if you gave it enough time. Now we had just gotten to the point of no return when we couldn't get the tether off that one handle when we got all wrapped around the axle here. ... That also would work, if you give it enough time and if you pick it up before you release the two vehicles.

52:47:16 CC Roger. Copy.

52:51:40 CC Tell me when we've got about a minute to LOS. Standing by.

52:51:43 P Right here we are just coming out of the sunlight.

52:51:49 CC Roger. Copy.

52:52:48 C The tape is ON.

52:52:54 P Whew, boy that ...

52:52:57 C How in the heck do they get sunlight there? Over.

52:53:02 P Thought it was just a little sunlight.

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52:53:21 C Get ready to turn your camera on too.
52:53:23 P Yes.
52:53:32 C I'd sure like to have the sun behind me.
52:53:34 P We're going over 90 degrees right now.
52:53:35 C What?
52:53:36 P We're going 90 degrees right now.
52:53:38 C Yes.
52:53:50 P I don't see any big rush, do you?
52:53:52 C No.
52:53:53 C Got to get that burn in - 53 when?
52:53:54 P 53:53:24.
52:53:57 C Oh gosh, I'll never get it done in time.
52:54:02 P All right. Where did the horizon go?
52:54:04 C It's coming up on my left 6. Under here, into the sun again, right?
52:54:08 P I've got it.
52:54:10 C Now it's going to be alongside the sun, is that right?
52:54:14 C Yes. We're going to be almost heads-up when we get there.
52:54:20 P The camera is on.
52:54:23 C All right. I'm first going to go to RATE COMMAND in and fire towards him and track him and jettison fire as the tether goes slack.
52:54:38 C That's terminator, isn't it?
52:54:42 P What the heck is this?

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52:54:45 C It's a terminator.

52:54:47 P That's all right. Oh shucks, we're in the wrong place, aren't we?

52:54:49 C Well, let's go ahead anyhow.

52:54:52 P You want to do it now?

52:54:53 C Let's wait one more turn.

52:54:55 P We're upside down and everything.

52:54:57 C Yes, darn it.

52:55:02 C I have that. Rushing us again.

52:55:04 C Why do they keep rushing us? Man oh man, they don't understand.

52:55:11 C 52? We'll never get that.

52:55:13 P 53:24 - -

52:55:15 C You got that burn entered?

52:55:16 P No.

52:55:17 C You enter it right now while we've got time.

52:55:21 C Computer is in - wait a minute - Computer's in NAV.

52:55:26 P Just leave it there.

52:55:28 C I need the logic for forward-firing thrusters in also.

52:55:33 P Okay, what the heck is that? Do you remember?

52:55:35 C It's in the book.

52:55:36 P I know it is, but I'm trying to remember it. 55 - -

52:55:42 C 55, all nines I think.

52:55:54 C Hustling us lately.

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- 52:56:15 P 55, all nines.
- 52:56:26 P You're all set to burn so you'd better start counting it.
- 52:56:28 C Yes, yes, yes. The platform burn.
- 52:56:30 P The time of burn better be 9.3.
- 52:56:35 C Is it up? Posigrade?
- 52:56:39 P Posigrade and up. So you'll be looking down a little bit.
- 52:56:46 P We're going to get going, right?
- 52:56:49 C Well, I don't know. It depends on where we are.
- 52:56:52 P Isn't that gosh darn sun up high enough yet?
- 52:56:59 C We're right at the very top. Now we're on top again.
- 52:57:04 C We're going to cut beyond, right into the sun.
- 52:57:09 P Shucks, now it's 60 degrees. We might be up - might be a little north of it.
- 52:57:14 P It's still rolling on us.
- 52:57:16 C Unfortunately, it's going to be in the wrong window. Boy, it's so dirty I can't see my hand in front of my face.
- 52:57:34 C Hey, everything's working well, Bill. It's in the right axis.
- 52:57:40 P Where the heck is the darn horizon?
- 52:57:42 C Watch it! The tape recorder's on.
- 52:57:45 P Sorry about that.
- 52:57:51 C Well, I'm not sure the terminator's gone by yet.
- 52:57:52 P I wish we had the horizon.

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52:57:54 C Where's the horizon? What's taking the sun so long to get here?

52:57:59 C It's always there when you don't want it; it's low when you do want it.

52:58:04 P We've got 25 minutes to get this done.

52:58:06 C Yes. If we don't get it done, we can do it on the next revolution in the same place.

52:58:11 P Oh, it's going to be okay. You want to do it now?

52:58:13 C What?

52:58:14 P You going - oh - have it okay?

52:58:15 C Oh, yes, yes, yes, yes, yes!

52:58:16 P What?

52:58:17 C Yes, yes, yes!

52:58:18 P As soon as it gets on the horizon I'm going to do it.

52:58:21 C All right, just a minute now. 1

52:58:22 P Come on. Get with it.

52:58:23 C Okay.

52:58:24 P There it goes. You want to go forward?

52:58:29 C Yes, go ahead.

52:58:30 C Straight command.

52:58:31 P Forward. I sent it.

52:58:33 C Okay.

52:58:34 C There it is.

52:58:35 P Blow it off there.

52:58:36 C Oh, oh! There it went. Boy, it went! Back up. Now, stop right there. Just stop right there.

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- 52:58:48 P Watch out for that bunch of wire. Don't get too close, Pete, you know that nylon's floating up there.
- 52:58:52 C Yes.
- 52:58:54 C Oh gosh! I forgot to turn the camera on.
- 52:58:56 P That's all right.
- 52:58:57 C Isn't that peachy?
- 52:58:58 P That's all right. Just leave it on now.
- 52:59:02 C Man, you'd think it'd go the first time.
- 52:59:03 P Well, you didn't get zeroed in on it.
- 52:59:06 P Okay. Now - now I want to pitch the Agena --
- 52:59:09 C Now wait a minute. You just leave the Agena alone for awhile.
- 52:59:14 P You go ahead and lower your platform down.
- 52:59:16 C No, I've got a lot of work to do first.
- 52:59:17 P What?
- 52:59:18 C I've got to get around in front.
- 52:59:23 P Look out for what --
- 52:59:24 C I don't understand --
- 52:59:25 P -- It's going to come down now.
- 52:59:33 P Just upside down. All I've got to do is yaw it. Pitch it one time. See how there's nothing to that?
- 52:59:40 C No. Came out real well. We were set up real well for that to happen.
- 52:59:51 C Now I'm going the wrong way.
- 52:59:53 P Whom are we near? Hey, you've got to get over that way.

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52:59:55 C Yes.

52:59:59 P Look out for the nylon strap coming up.

53:00:16 C It's going to hit us probably.

53:00:23 C Can't worry about it now.

53:00:28 P Why don't you let it run out?

53:00:30 C I never even know when it's run in.

53:00:32 P Yes, let it run.

53:00:33 C We left the Agena exactly upside down.

53:00:35 P Yes. That's all right. Pitch it over. I'd do that right now.

53:00:45 C Now don't do it until I get the Stationkeeping attitude, that's all. I just don't want to get - you know - too many things working at once. Let's get the Spacecraft squared away because the ground always squares him away.

53:01:11 C You get a good PAO for them after we get round in front of it.

53:01:23 C Look at the tether sticking straight out!

53:01:27 P Turn the camera back ON again.

53:01:40 P Reset all your stuff? Got that switch OFF?

53:01:42 C No, wait a minute. That's - Retro Power, OFF ... up to SAFE.

53:01:47 P Retro Power's OFF?

53:01:49 C Retro squibs are ON. That's ON. That's ON. That's ON. That's ON.

53:01:53 P That switch is OFF?

53:01:55 C Which switch?

53:01:56 P This up here.

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53:01:57 C Yes. It's OFF.

53:02:15 P Which way are we moving anyway?

53:02:17 C All I'm doing is flying a ball.

53:02:21 P What the heck is it on?

53:02:23 C What?

53:02:26 C I'm on the Agena.

53:02:28 P You've got to get around a long way to see it.

53:02:30 CC Gemini XI, Hawaii.

53:02:31 C Go ahead.

53:02:32 P Gemini XI, go ahead.

53:02:34 CC Hey, I got both of you. I have an update for your Pre-Staging Maneuver.

53:02:50 P Okay. Go ahead.

53:02:52 CC Okay. GET B: 53:24:56; Delta-V, 8.8; Core 25, 00051; Core 26, 90071; Core 27, zips; thrusters, forward; maneuver is Posigrade up.

53:03:35 P This is Gemini XI. Copied 53:24:56; Delta-V, 8.8; Core 25, 00051; Core 26, 90071; 27, zips; forward thrusters; Posigrade up. Over.

53:03:50 CC That's affirmative.

53:03:51 P Roger.

53:03:55 C Okay. Now.

53:03:57 P We just got loose from the Agena. It's got a 100-foot tether flying all over the place, but we're riding the platform, Stationkeeping. And we left it with the engine forward and upside-down. We'll square it away for you while we're sitting here alining the platform.

53:04:15 CC Okay.

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53:04:18 C We don't want you to have to work too hard down there.

53:04:21 CC Understand.

53:04:30 P Are you minding the platform there like - -

53:04:33 C I'm in BEF scan - -

53:04:35 CC Gemini XI, Hawaii.

53:04:36 C Go.

53:04:38 CC You've been requested to leave the Agena alone.

53:04:40 C Don't think I can handle it?

53:04:42 CC (Laughter) We really think you can handle it all right. It's just that we want, you know, to try it out with this Radar Test we're about to perform.

53:04:52 P Okay. Let's set up the Radar Test. What is it, whatever it is. Roger.

53:04:56 CC Have one more little update for you.

53:04:58 P Go ahead.

53:05:00 CC Okay. It's 53:11:00; C-Adapter to CONTINUOUS.

53:05:17 P Roger.

53:05:18 C Did you receive the PAO photograph and all that good stuff?

53:05:20 P I didn't hear it.

53:05:23 CC Why don't you give a little rundown on that Separation or about the jettison of the tether.

53:05:28 C Roger. What we did is get it on the horizon. We went ACS ON, RATE COMMAND. Fired up and forward to stop the translation. I hit the Jettison switch and nothing happened. I hit it again and it blew. All switches were set. I don't know why it didn't fire the first time. And everything stopped real well. The Agena Control System stopped it right

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away and we got squared away without using too much fuel. And we're Stationkeeping BEF, Platform Alining right now.

- 53:06:03 CC Okay. We copy that.
- 53:06:12 C And the tether is just slowly sailing around all the way up trying to see one way and then all the way trying to see the other way.
- 53:06:32 C I wonder how our Platform's doing.
- 53:06:34 C You alining it?
- 53:06:36 P Heck yes, I'm alining it!
- 53:06:37 C It should be okay. What seems to be the matter with it?
- 53:06:39 C Well, I just wonder how close it is to being in alinement.
- 53:06:43 P It's okay until --
- 53:06:44 CC Gemini XI, this is Hawaii. Is that update that they gave you at Tananarive in regard to this test? They implied Hawaii was going to tell you to send SPIRAL SELECT. It'll be RKV instead.
- 53:06:56 P Roger.
- 53:07:03 C Did you get this end of it? You did didn't you?
- 53:07:12 C Now computer Address I guess.
- 53:07:16 CC Gemini XI, Hawaii.
- 53:07:17 C Go.
- 53:07:18 CC Roger. Do us a favor and put the Agena in FCl.
- 53:07:23 C Roger.
- 53:07:30 P Your word is my Agena command.
(Laughter)

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53:07:38 CC Can't do without you, Dick.

53:07:54 C How about checking them for me because I didn't get a MAP on anything. See if that stuff is in it.

53:07:59 CC Roger. Then everything is okay. Thank you much.

53:08:02 C Okay.

53:08:08 C Yes. The tether is slowly wrapping itself around it like a Christmas present.

53:08:15 CC (Laughter) You make it sound so dramatic.

53:08:18 C Wait until you see the movies.

53:08:21 C I think I'm just about out of film now.

53:08:27 C Yes. It wrapped itself around one end and then it wrapped itself around the other end and it's slowly wrapping itself around the big engine now.

53:08:36 CC Let's have hope that it doesn't go around the horizon sensor.

53:08:40 P It's clear. They're both clear.

53:08:43 C Are they? I can't see them. Matter of fact, it is wrapped around the horizon sensor.

53:08:47 P No, this one on this side is clear. There's a red flag by it there. See, it's above it?

53:08:53 C I can't see that. The nose is in the way. Oh, I'm Stationkeeping on the Agena.

53:09:00 P Let me see about getting a minute here for you.

53:09:06 C Says 5 aft and 7 up?

53:09:09 P Yes.

53:09:10 C Computer Address and pitch up.

53:09:16 P ...

53:09:18 C ...

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53:09:26 P We in computer Address?

53:09:28 C We're in computer Address, says pitch up and then roll heads down.

53:09:33 P Oh, oh.

53:09:34 C Listen, I'm going to fire just this way in components. All right?

53:09:40 P Yes. That's fine. How are you going to get 80 and 81 out of there? Oh, you can still do it.

53:09:45 C Just read them in components.

53:09:46 P Just want to be especially perfect on this thing.

53:09:52 CC 1 minute to LOS. Houston standing by.

53:09:54 P Roger.

53:09:59 C Well, I could roll heads down 5, but I don't think I'd better.

53:10:04 P ... time ...

53:10:06 C Now it's going to wrap itself - all the way around it.

53:10:11 P Yes. It's 24 minutes. You got 14 minutes of Platform Alining.

53:10:16 C Yes.

53:10:18 C Did I get those aft-firing thrusters in there again?

53:10:21 P Goodness. See if I got that.

53:10:24 C Yes. But it asked where it heads down doesn't it?

53:10:28 P Why should it, if they're aft firing?

53:10:31 C I don't know. Check and see. Maybe just --

53:10:38 P That's all right. I guess the needles will be all right.

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53:10:40 C Look, I'll just fire, I'll just go to ORB RATE and fire on the horizon. Fire up the components. That's the best I can do. Okay.

53:10:52 P Yes.

53:10:56 C Unless you want me to stop and roll heads down --

53:10:58 P No. Heck no. Continue alining. Let's get a good alinement.

53:11:10 C Think they'll hit us this time?

53:11:11 P Heck. Heck no.

53:11:26 C Heck. It has to be hitting it.

53:11:28 P It is.

53:11:32 C I can't do anything.

53:11:45 C 80 or 87.2. Is that the burn?

53:11:50 P I have 82. ... component is 7.1 ... burn. ...

53:12:00 C They want me to burn up and aft.

53:12:02 P That's a - boy 71 and 51.

53:12:04 C Okay. You ready to tell which way to burn to get the residuals out?

53:12:09 P Oh. I think I am.

53:12:11 C Give them to me one time to see if I'm right.

53:12:14 C Want to try it right now?

53:12:16 P No, I've got it completed. 81 is --

53:12:18 C Hey, yes you'd better re-cycle this whole "gismo".

53:12:21 P Why?

53:12:22 C Because I'm firing the maneuver thrusters - Station-keeping.

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53:12:26 P Oh you are?
53:12:27 C Sure. We're not just sitting out here for nothing.
Now set it all up again.
53:12:30 P Don't have to set it up.
53:12:33 C Yes you do. You could be aft fire and ... cabin
Gemini.
53:12:36 P The other is in.
53:12:42 P Hear that? That's in - that doesn't change, but
the ... is not in. I'll put it in.
53:12:52 C I'll let you know when you can Start Comp.
53:12:54 P What?
53:12:55 C What did you Start Comp for?
53:12:59 P Just to play with it.
53:13:00 C Oh, oh. Excuse me. Got you.
53:13:05 P Now it's got to be done before you can Start Comp.
53:13:07 C Okay. What's the burn?
53:13:11 P 20 - 53:24:56.
53:13:16 C 24:56.
53:13:26 C What's the propellant read?
53:13:27 P Let me know when I can Start Comp.
53:13:28 C Okay. 17 percent.
53:13:32 P It's going to be a cheap Rendezvous. Are we going
to do another burn like this again?
53:13:38 C Sure.
53:13:39 P What?
53:13:40 C Sure.

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53:13:41 P One revolution later?

53:13:44 C Yes. Let's see, we used most of our fuel out of maneuver thrusters, didn't we? Yes, we used about half and half, didn't we?

53:13:50 P Yes.

53:13:51 C So what's that going to do to our oxidizer tank? VW tank?

53:13:57 P Heck. All those guys got to do is wait till that darn Agena goes around the world and it'll be right side up again.

53:14:02 C Yes.

53:14:03 P Look at that nozzle. It's cleaner than a pin.

53:14:04 C Yes.

53:14:05 P Look how clean it is.

53:14:11 P You're right in the way; I can't take a picture of it though. That's too bad.

53:14:14 C I'm in the way? I'll move over, if you want.

53:14:17 P You're going to have to move down if you want me to do anything ... put it up here - we're way up in the sky.

53:14:23 C We're not up in the sky. We're wings level.

53:14:29 P No.

53:14:30 C Yes.

53:14:31 P Way up in the sky?

53:14:33 C Yes.

53:14:42 C Something else we've got to talk about is how we're going to do this Rendezvous tonight. Better break out your Rendezvous Book again. Where did you put that thing?

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53:14:51 P It's right here.
53:14:52 C Okay. We'll set up the 130 procedures - okay?
53:14:58 P Okay.
53:14:59 C It's a good thing you've computed it. You aren't going to have radar?
53:15:03 P That's right. Must be scrapped. I almost died when that darn ... hit the fire out there. I saw a couple of little flames go sputter, sputter from it.
53:15:16 C Yes. I don't understand what happened. I think when I hit it the second time, I got another squib to fire or something.
53:15:21 P Why don't you move down a bit?
53:15:23 C Down?
53:15:24 P Yes. That did it.
53:15:28 P 53:24:56.
53:15:32 C 53 what?
53:15:34 P 24:56.
53:15:51 C Isn't she pretty?
53:15:52 P Yes, it's pretty. Move down just a little more, a little more.
53:15:56 C Those darn - now, a little more. It's drifting down.
53:16:05 P Take this one with a Hasselblad.
53:16:06 C Why don't you get the horizon in. It's drifting down. That tether is initially going to stabilize a degree. That bird took it the long way, didn't it?
53:16:33 P Sure did. Hate to see it go.
53:16:38 C Gee, never thought we'd get all this done.

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53:16:45 P Why not?

53:16:46 C Is that plate split on the side?

53:16:47 P The what?

53:16:48 C That thin plate.

53:16:49 P What thin plate?

53:16:50 C See it? There on the side of the engine. Or is that just a shield?

53:16:57 P I don't know what you're talking about. The nozzle itself?

53:16:59 C Yes. Down the side of the nozzle. The plate at the aft nozzle, to the left.

53:17:04 P That's that - what do they call it. Sump tank, or what the devil is that - turbine overboard. I don't think that's split there. (Whistling)

53:17:30 C We hit it right dab, smack in the bottom.

53:17:33 P About 7 minutes.

53:17:34 C What?

53:17:36 P I guess I'm just nearsighted.

53:17:40 P Little more down and I'll be able to take a good picture.

53:17:42 C She's drifting down slowly.

53:17:57 C Wait till that - till you get the tether out the other side, there.

53:18:14 P What kind of crap is in my nose?

53:18:18 C I don't even dare look at mine.

53:18:21 P Look at that.

53:18:22 C What?

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53:18:28 P It's just hanging overboard.
53:18:33 C Just a little cut.
53:23:09 C Okay. We're getting ready to make the Sep burn.
Go ahead. Go to ORB RATE.
53:24:16 P ORB RATE - RATE COMMAND. I'll wait for you 30
seconds.
53:24:25 C Just leave it.
53:24:28 P You're going to go to RATE COMMAND right now? Okay?
Ready?
53:24:35 C Okay.
53:24:36 P RATE COMMAND.
53:24:37 C Leave it. Use BEF. It's better to burn BEF.
53:24:40 P Use Start Comp.
53:24:42 C Okay. Go into BEF.
53:24:45 P Why are you going to do it that way?
53:24:47 C What? Because the needles will stay in the right
configuration.
53:24:52 P Okay.
53:24:54 C Stand by.
53:24:57 P Go aft. ... just to get away from that darn - look
there, look there - what was that darn thing - look
at it move that --
53:25:13 C Yes.
53:25:14 P -- tether. Okay. When are you going to quit -
got residuals for you if you want them.
53:25:28 C Wait a minute. Okay.
53:25:38 P Hold it right there. Don't move anything. Aft 1/10th
- just flip it, that's enough, that's enough, that's

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zero right there.

- 53:25:47 C Okay.
- 53:25:48 P Let me get the others for you. Just flip it forward 1/10th. Darn - too hard. That's 1/10th. Now leave it alone. You're flipping too hard. Okay. Left.
- 53:26:10 C Left?
- 53:26:11 P Left, less than that. I think it'll do it though. Okay, that's 080. One is zero. See what 82 reads. 82 reads zero, let's go back to 80. Okay, it's aft 2/10ths. Pull it out; that's enough, that's enough. Okay, it shows forward 1/10th now, you - 2/10ths - that's enough, that's close enough - I'll get - that's close enough. Here put this away.
- 53:26:50 P Suppose we pitch down and get the Agena. We have a little test to perform here.
- 53:27:12 C I wish they hadn't done that.
- 53:27:13 P Done what?
- 53:27:14 C Fired aft. That stupid - remind me to give him heck about that.
- 53:27:18 P I'm sure they wanted you to keep the Agena in sight.
- 53:27:21 C Who gives a darn - the most important thing is to do the burn right. Heck, I could have done it right alongside of them.
- 53:27:27 P Yes. You got it out there. You got all the components out? Practically no sweat.
- 53:27:30 C Yes, but what a way to do it.
- 53:27:35 P That's all right.
- 53:27:36 C Where is he?
- 53:27:37 P I don't know - I don't have him yet.
- 53:27:41 C Didn't take long, did it?

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- 53:27:43 P Radar shows down and ... left.
- 53:27:47 C Radar has been reading that all day. Should have climbed up on them instead of passing that up keep that somewhere.
- 53:28:11 P Get those ACQ lights on.
- 53:28:20 C I couldn't find New York City if it was 5 feet in front of me at this window.
- 53:28:28 P Oh, there it is - there it is!
- 53:28:29 C Where?
- 53:28:30 P Right down below us.
- 53:28:31 C Where?
- 53:28:32 P Pitch down, pitch down, pitch down!
- 53:28:34 C It's coming down.
- 53:28:37 P Going along directly below us.
- 53:28:41 C Oh, there he is, yes. How about that?
- 53:28:47 P Radar is still loused up, isn't it?
- 53:28:48 C Yes. What are we supposed to do now?
- 53:28:50 P Go, RKV, they're supposed to send commands to it - boresight on it.
- 53:28:59 C Where is he? Keep in sight.
- 53:29:01 P Straight ahead of you. You got it in PULSE?
- 53:29:04 C Yes.
- 53:29:05 P Okay. Let me slow this pitch rate down some.
- 53:29:16 P Boy, it really moves along the ground! No wonder Tom and Gene had trouble with that thing.
- 53:29:21 C Look at that tether out behind it.

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53:29:22 C Yes.

53:29:23 P That is really amazing, isn't it?

53:29:47 C Now you know you're going 17,500 miles an hour.

53:29:49 P You know you're moving.

53:29:50 C Look at that ... along over the ground.

53:29:52 P What the heck is this doing out here?

53:29:54 C You told me you were going to stow it in your aft box, so I put it there so you could stow it in your aft box.

53:29:59 P Hush.

53:30:09 C What are we supposed to do in this dingy test - just keep pointing at them?

53:30:13 P Yes. We're going to go SPIRAL.

53:30:16 C What land is that?

53:30:18 P Set 270 BORESIGHT for 2 minutes, ACQ OFF and ON. See if I can get it to do it. Well, it's got to be South America because we're going to be over the RKV shortly.

53:30:33 C Rendezvousing from over the top must have been fantastic.

53:30:35 P As long as you can see it, it's all right though, you know that? Look at that.

53:30:40 C Yes, but how do you know what you're doing? Grab a picture of that with the 70. That is picturesque.

53:30:55 P 56?

53:30:57 C I don't know. Use the spot meter but you're missing the terrain.

53:31:01 P One or the other, boy.

53:31:04 C I'll check it and see if I got it. If I missed the

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the terrain, I missed it. Where did he go?

- 53:31:11 P Here he is.
- 53:31:13 C 15, 15, 15, is 1250.
- 53:31:22 P That's just about right.
- 53:31:24 C Yes. I get all that roll and everything ... going.
I can't track him over the ground.
- 53:31:30 P South American coast.
- 53:31:33 C Liable to get that weather ...
- 53:31:38 P What are we doing up this time of night, anyway?
- 53:31:40 C Up? It's only 3:15!
- 53:31:42 P What are we doing over South America?
- 53:31:45 C We're just starting our South American passes.
- 53:31:54 P Look at that rascal go!
- 53:32:01 C Darn it.
- 53:32:02 P What's the matter?
- 53:32:04 C Oh, I'm just mean. Where is he? Oh, there he is,
down there.
- 53:32:13 P RKV, Gemini XI. Over.
- 53:32:18 C Oh, that's pretty country. Get the Agena and the
country. Get everything.
- 53:32:28 P Wait'll it comes out here in the brown.
- 53:32:30 C Wish I'd had some film in my 65mm camera. Too late
now. I can't win them all. You were always holler-
ing about that 75mm.
- 53:32:58 P ... RKV sent 270 BORESIGHT. 2 minutes. 270 is
dipole.
- 53:33:12 C Man, is that hard, trying to track them with this

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sight!

- 53:33:16 P You ought to look at it with your naked eye, just as easy or better.
- 53:33:21 C Yes, but what I'm trying to do is to see that we're staying right on in-plane.
- 53:33:25 P RKV, Gemini XI. Over.
- 53:33:34 C I'd say we've got 15 percent fuel remaining. That's somewhere around 160 pounds. Look at that geography.
- 53:33:47 P Yes. Maybe I can get some more pictures of that.
- 53:33:52 C Yes.
- 53:33:55 C Now I've reset it. It's going to be awfully dull down there.
- 53:33:57 P It's at 13-1/2, which is a R-6 at 254.
- 53:34:15 C Got that thing calibrated for 64, haven't you?
- 53:34:26 P No, it's set on 64.
- 53:34:28 C I can still see the tether.
- 53:34:30 P Yes, I can too.
- 53:34:35 C Wonder how far away we - -
- 53:34:36 P Ask for digital range once and see if that does anything.
- 53:34:45 P It shows at .2 which we had when it konked out.
- 53:34:57 P That's fun watching that go across that ground, isn't it?
- 53:35:00 C Yes, yes. You know what we're doing right now? We fired Posigrade and up.
- 53:35:09 P Which, with both of them, make us climb.
- 53:35:11 C We're climbing straight up in the air. We've been hanging right out here in front of him.

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53:35:16 P Yes. We're straightened out now.

53:35:17 C No. We're climbing straight up from him.

53:35:19 P Yes.

53:35:20 C Straight up. He's obviously getting smaller and we were sitting right on top of the ball.

53:35:24 P Yes, but we didn't start there. We started down flatter. We're just on - wait a minute.

53:35:30 C ... yes, but what I'm saying, is right now we're climbing straight up. All the time that we're over him - right now we are going up - straight up from him.

53:35:39 P Now we're starting to go backwards.

53:35:42 C Very little, though.

53:35:44 P Well, it will get more and more.

53:35:47 C Boy, we just don't have any radar at all, but we really lucked out, I guarantee you that, Father.

ROSE KNOT VICTOR

53:35:54 C RKV, Gemini XI. Over.

53:35:58 CC Gemini XI, RKV.

53:35:59 P Roger. We have the Agena in sight. It's below us a couple of miles. I don't get any Range or Range-Rate information on the radar. Standing by to run these tests with you. Standing by to send DIPOLE and then ACQ lights ON and OFF, whenever you're ready.

53:36:16 CC Roger. T/M is a little bit shaky yet. Stand by for just another minute or so.

53:36:25 P Okay.

53:36:30 CC Okay. It's looking good here on the ground. We're ready for Command 270.

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53:36:35 C Roger. Sending 270. MARK.

53:36:40 C We saw a MAP here on the ground and we also have the event confirmed.

53:36:45 C Roger. No MAP lighting on the Spacecraft. Setting 250, 251 after 2 minutes.

53:36:52 C Roger. Sure looks pretty moving along that South American ground.

53:37:03 P Darn right.

53:37:06 CC Hey. Be advised that we're also scheduled for fuel cell purge during this pass, Section 2 and then Section 1.

53:37:13 C Roger. I'll let you know when I commence.

53:37:16 C Okay.

53:37:17 P How long do you want me to boresight them?

53:37:18 C How long do you want me to boresight them?

53:37:20 CC 2 minutes.

53:37:23 CC I think they wanted about 2 minutes or something like that.

53:37:26 C Okay. We're tracking them.

53:37:30 CC 1 minute's probably good enough - 1 to 2 minutes.

53:37:33 C Okay. What do you show on the ACQ light, ON or OFF?

53:37:37 CC We show the ACQ light ON at the present time.

53:37:40 C Okay. Sending OFF. MARK. What did you get?

53:37:42 CC Confirm ACQ light did come OFF.

53:37:47 C Roger. Sending 251. MARK.

53:37:51 CC And the ACQ light did come back ON.

53:37:53 P Okay. We're getting through to it, I guess.

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We have no Radar light and I'm not receiving any MAP lights. I have no radar Range or Range-Rate.

- 53:38:03 C No azimuth or elevation?
- 53:38:04 P No azimuth or elevation, either.
- 53:38:06 C Have the azimuth elevation error locked at 1-1/2 degrees pitched in, and 1-1/2 degrees yaw left.
- 53:38:22 CC Roger.
- 53:38:23 P My residual readout and Addresses 36 and 35 are the same as they were Monday when everything quit.
- 53:38:33 CC Okay.
- 53:38:35 P And I guess that's enough of that test here. The next one's over CSQ. I'm going to start the fuel cell purge. Crossover is ON.
- 53:38:43 C I'm going to have to keep boresighted if we want to
--
- 53:38:45 P No, you're not.
- 53:38:47 C Why - supposed to boresight over CSQ.
- 53:38:49 P Yes, but Platform mode will do it.
- 53:38:52 P Oh, we will be all the way around?
- 53:38:54 P That's what they say.
- 53:38:57 C Do you want to leave them?
- 53:38:59 P RKV. Was that Section 2 first?
- 53:39:02 CC That's affirm. We'd like to start Section 2 first.
- 53:39:05 P Roger. Hydrogen. MARK.
- 53:39:07 CC Okay. And then I have some updates for you. One of them is a Standoff Maneuver Update, when you're ready to copy.
- 53:39:13 P Stand by until we get through with this purge.

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53:39:17 C Standoff Maneuver Update? What's your DELTA-P read with that light ON?

53:39:25 P I won't get it now. It shouldn't do that.

53:39:28 C We're at - at .8.

53:39:32 P Hydrogen DELTA-P on Section 2 at .8. Section 1, Hydrogen. MARK.

53:39:40 CC Roger.

53:39:52 P DELTA-P light at the end of the purge at approximately .85.

53:39:58 CC Roger. No sweat.

53:40:01 P Oxygen on Section 2. MARK.

53:40:03 CC Roger. Are you ready to copy during the time you run the O₂ purge?

53:40:13 P That's affirmative. You can go ahead.

53:40:23 CC Okay. Maneuver purpose is Standoff Maneuver. GET B: 54:37:27; Delta-V, 8.9; burn time is 0 plus 11; yaw, 18 degrees; pitch, 56 up; Address 25 is 90050; 26, 74; 27 all zeros; thrusters, aft; maneuver, Posigrade up; and this is the maneuver for the D-3, Mode A burn.

53:41:11 P Roger. I understand. Give me Address 26 again, please?

53:41:14 CC Roger. 26 is 90074.

53:41:17 P Roger. Standoff burn 54:37:27; 8.9; 0 plus 11; 18 degrees yaw; 56 degrees pitch up; 25, 90050; 26, 90074; zips for 27; aft, Posigrade up. Over.

53:41:39 CC Sorry about that. Yaw is 180 and maneuver is Retrograde up.

53:41:49 C What are they doing to us?

53:41:52 P Roger. 180 and Retrograde up.

53:41:57 CC Roger. And I have a couple of items for Flight Plan

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Update here too.

- 53:41:59 P Stand by. Just about through with the oxygen.
- 53:42:01 C Why yaw? What do we put yaw in for?
- 53:42:04 P I don't know.
- 53:42:09 C What do we put yaw in for?
- 53:42:11 P Because they want you to use the aft-firing thrusters.
- 53:42:15 C What? It doesn't make a difference what thrusters we use. What do we want to put in yaw for?
- 53:42:21 P It's 180 degrees - you're BEF.
- 53:42:23 C But why fire yaw?
- 53:42:26 P 180 degrees?
- 53:42:28 CC We're using the aft thrusters for the Calibration burn.
- 53:42:33 P He didn't say 18 and he changed it to 180 - that's BEF only.
- 53:42:37 C You'll have to explain it to me - you've got me confused.
- 53:42:42 P Okay.
- 53:42:47 C Everything should be fired at - they are fired out of the F-11 thrusters, is that what you're telling me?
- 53:42:52 P Yes. This one is. That's why you're 180 yaw. Because it's a Retrograde burn.
- 53:42:59 C Okay. Look at the darn end of the tether all lit up.
- 53:43:05 P Yes. It's fantastic. 1 more minute on the oxygen.
- 53:43:13 CC Gemini XI, RKV. We're going to have LOS shortly. I'd like to get the rest of this information to you.

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53:43:18 P Okay. Go ahead.

53:43:19 CC Roger. Did you understand that this was a D-3, Mode-A, Retrograde burn, in addition to the Stand-off?

53:43:30 CC Gemini XI, do you copy?

53:43:33 C Negative. I didn't copy that.

53:43:35 P Go ahead. I didn't copy.

53:43:37 CC Roger. Did you understand that the maneuver is also a D-3, Mode-A?

53:43:42 C That's affirmative. That's affirmative.

53:43:45 CC Okay. Update for D-15: Start Time, 54:32:12; leave door closed until immediately after Standoff Maneuver. Power-down computer after maneuver. The second item is delete the power-down at 54:05 and move it to 57:30:00.

53:43:58 C I've got the answer to the next one. Forget it. Leave the door closed, obviously.

53:44:08 P Yes. While we're making that burn.

53:44:10 C Yes.

53:44:11 P Why Mode 37?

53:44:13 C Just going to warm up, I guess.

53:44:25 C Okay. I can't track him anymore, so I'm going to - yes - which way am I supposed to Aline the Platform?

53:44:37 P You don't want to aline it, it's already in line.

53:44:40 C I thought you just told me we were going to Aline the Platform, again.

53:44:42 P No. All I said was Platform mode ... CSQ. Make these other tests, that's all that was there.

53:44:48 C What time is the next burn?

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53:44:57 C And it's BEF. Fire in the aft-firing thrusters.
It's Posigrade, then we go on Retrograde. Okay?
53:45:13 P Stuck that way up here.
53:45:16 C Oh! Excuse me, lady.

TANANARIVE

53:56:52 CC Gemini XI, Houston.
53:56:54 C Hello, Houston.
53:56:56 CC Roger. Could you send Command 50 which is C and
S-BAND BEACON OFF to the Agena and Command 10 for
BEACONS ON?
53:57:16 C Is that Command 050?
53:57:18 CC That's affirm. 050 and 010.
53:57:25 C Now, we're playing SEF.
53:57:35 P Houston, they've been sent. Are they in?
53:57:47 CC Roger. We can't tell. You're presently yaw 180.
Is that correct?
53:57:54 P Negative. We're 000 right now.
53:57:59 CC Roger. But on the Standoff Maneuver, yaw would be
180. Is that correct?
53:58:04 P That's affirmative. We're BEF and aft firing
thrusters.
53:58:07 CC Roger.
53:58:08 P I thought you said yaw 1.8. That had me buffaloed.
53:58:15 CC Roger. Were you able to copy the D-15 Update?
53:58:19 P No. Would you give it to us, please?
53:58:21 CC Roger.

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53:58:23 CC Start Time: 54:32:12; leave the door closed until immediately after the Standoff Maneuver. Power-down computer after Standoff Maneuver. Another note, delete the power-down at 54:05:00 and power-down instead at 57:30:00. That will keep you powered-up for the D-15.

53:59:16 P Roger. Understand D-15 Start Time: 54:32:12; leave the door closed until after the Standoff Maneuver. Delete the powered-down point, command powered-down after D-15.

53:59:32 CC Affirmative.

53:59:34 P Roger. ... we're with you.

54:04:06 CC Gemini XI, Houston. About a minute to LOS.

54:04:09 C Roger. Houston. —

COASTAL SENTRY QUEBEC

54:19:23 P Gemini XI.

54:19:26 CC Gemini XI, CSQ.

54:19:28 P Roger. We're standing by to do this Radar Test with the Agena target.

54:19:36 CC Roger. Will you send Command 260?

54:19:44 P Roger. 260 Command.

54:19:49 CC Okay. We have the vent down here.

54:19:51 P Roger.

54:19:55 CC Okay. Boresight for about 1 minute. Right?

54:19:58 P Roger. Then send 250 and 251 again. Right?

54:20:02 CC That's affirmative.

54:20:05 C Now it seems to work every time, but boy, you sure never know it from over here.

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54:20:10 CC Roger.

54:20:13 CC Okay. I'd like to have you send Command 060.
That's the TIMER RESET.

54:20:21 P 060.

54:20:26 P Did you get it?

54:20:28 CC Roger.

54:20:54 CC Gemini XI, CSQ.

54:20:55 P Go.

54:20:57 CC Okay. You can vent your H₂ tank vacuum.

54:21:03 P Roger. Let's give her these commands for the Agena
first. Shall we?

54:21:06 CC Roger.

54:21:07 CC Roger. Standing by for 250.

54:21:12 P 250 being sent.

54:21:15 CC Roger. We have a MAP and vent.

54:21:17 P Roger. Going back 251.

54:21:24 P 251 being sent.

54:21:27 CC Have a MAP and vent.

54:21:29 P Roger. We'll go to the vent.

54:21:45 CC CSQ standing by for the H₂ tank to vent.

54:21:48 CC Roger.

54:21:54 P Roger. We ...

54:21:58 CC Copy.

54:21:59 P ...

54:22:08 P Roger. We're going to jack it up to 670 now.

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54:22:13 CC Say again, Gemini XI.

54:22:14 P We're going to jack the hydrogen up to 670.

54:22:16 CC No. You can delete that at this time. We'll catch it a little bit later.

54:22:21 P That's very good.

54:22:41 CC Gemini XI, CSQ.

54:22:42 P Go ahead.

54:22:44 CC Have you had any change on your Range, Range-Rate, Azimuth, or Elevation?

54:22:49 P That's negative. Let me check one more time. We'd like to power-down radar and turn 180.

54:22:57 P Address 36 still reads 120 feet and 35 reads all 9's.

54:23:04 CC Roger. Copy.

54:23:07 P Should we turn our Radar off?

54:23:09 CC Stand by.

54:23:23 CC Roger. You can go ahead and power the radar down.

54:23:25 P Roger.

54:23:35 P This is Gemini XI. We're going to 180.

54:23:39 CC Roger.

54:25:06 C Reversed nominally FD ... I copied them all. Hung up at - -

54:25:07 P 270.

54:25:11 C - - 270. Gimbal angle - just - darn near didn't flip.

54:25:18 P You must have hit it right on the button, then.

54:25:20 C I guess I did.

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54:25:25 C What's your ball read?

54:25:27 P 230.

54:25:28 P MARK.

54:25:30 C Okay.

54:25:31 C Where's your little index, right at the top?

54:25:35 C No, mine's 3-3/4 to the right. Is yours at the top?

54:26:23 P Pete, I want you to burn this for just 11 seconds till I get the reading out of A for D-3.

54:26:29 C Gosh darn, I wouldn't worry about that.

54:26:32 P It's all right. It won't take me that long.

54:26:33 C Okay. Okay. I've gone BEF PLAT. Continue PLAT aft.

54:26:49 CC Gemini XI, we've got about a minute to LOS.

54:26:51 P Gemini XI. Roger. Thank you very much.

54:26:54 CC Roger.

54:26:56 C Okay. I was going to do that right at the moment.

54:27:06 C Sun's giving those horizon sensors ...

54:27:23 C ...

54:27:32 C Try it one more time.

54:28:03 C Why's it doing that?

54:28:04 P What is it doing?

54:28:06 C As soon as I go into the Platform mode it drives it off PLAT aft just a little.

54:28:11 P I'm right on.

54:28:12 C You are?

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54:28:13 P Yes.

54:28:14 C My needles don't have the right ...

54:28:20 P I'm dead center.

54:28:21 C Okay. Let me - they're coming in now.

54:28:29 P Okay.

54:28:32 C Okay. The burn is 37:27, right?

54:28:35 P Affirm.

54:28:36 C So 29:27 would be 8 minutes to burn, right?
29:27.

54:28:47 P Yes, yes.

54:28:51 C 8 minutes to burn here.

54:28:52 C Okay. Give me a call at 29:27.

54:28:53 P Okay.

54:29:13 C Boy! Looks funny not to see the Agena in parts.

54:29:14 P Doesn't it though?

54:29:15 C It really does.

54:29:16 C Just got to get used to them all plastered on the
front end there.

54:29:24 P 5, 4, 3, 2, 1,

54:29:29 P MARK.

54:29:30 P 29:27.

54:29:31 C 29:27. Is that what you - 8 to that would make it
37:27.

54:29:37 P Is that right?

54:29:39 C 54:37. I could have written down 29 but it looks
27.

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54:29:47 P It's 27. I checked it.

54:29:48 C Okay.

54:29:49 P I have written down 27.

54:29:54 C 27. That'll ...

54:29:57 C (Laughter) You just did. You just did.

54:30:06 P Well, we just left CSQ - we're coming up over Hawaii.

54:30:10 C All right. 11 seconds is 59:49. Is that right?

54:30:20 P What?

54:30:21 C 59:49 - counting down.

54:30:27 P 32:12, I would have to start my clock because it matches this MAP over here.

54:31:47 C Very difficult to determine yaw. I'd sure hate to retrofire just looking out the window, wouldn't you?

54:31:55 P Yes. It'd be kind of tough.

54:32:00 C Man! There is a tropical storm for you. He's bigger than a typhoon. See it down my window, out here?

54:32:07 P Yes, I can see it out mine, too.

54:32:13 C Where are we, anyhow?

54:32:14 P We're coming up between - we're between Hawaii and CSQ.

54:32:19 C Oh yes. We're - that must be one of them - -

54:32:26 P Boy, that's a big one, too, isn't it? Look at the size of that thing!

54:32:50 C Wait till I put my sunglasses on. It's getting to be that kind of weather out here again.

54:33:11 C Okay. How much pitch-up is there in this thing?

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What are the components? Yes - or is it just your retrograde?

- 54:33:13 P No. It's pitched-up, too.
- 54:33:23 P Wait till I find it for you. It's pitched-up 56 degrees.
- 54:33:27 C Okay.
- 54:33:29 C That tells me something right now.
- 54:33:33 P You'd better stop alining and do something else.
- 54:34:10 C Okay. ORB RATE, Computer.
- 54:34:14 C It just pitched down.
- 54:34:19 C I've got to roll heads down to fire aft. I've got to roll ... it's supposed to be aft. I'm going to check 2 seconds.
- 54:34:34 P 26, 90074.
- 54:34:36 C Okay.
- 54:34:37 P Wait a minute!
- 54:34:40 P Yes, that's it, 90074.
- 54:34:42 C All right. Let me just --
- 54:34:45 C What did you just do?
- 54:34:47 P Checking you out.
- 54:34:49 C Yes. Okay. Let me see.
- 54:34:52 P What do you have to roll heads down for?
- 54:34:54 C That's the way you fire 1 aft.
- 54:34:56 P Is that right?
- 54:34:58 C Yes. Does that make the needle come back in?
- 54:35:00 P It should.

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54:35:25 C Coming in there now.
54:35:26 P Where's she been?
54:35:28 C That's not too much stuff.
54:35:32 C Yes. It says pitch up to 86 degrees, says here.
54:35:56 C Okay. Do you agree?
54:35:59 P Yes, sir. Right on the button.
54:36:15 C Okay. Can I hit this?
54:36:17 C We've got 1 minute to burn.
54:36:18 P Wait till 30 seconds.
54:36:20 C Okay, because I want to read it out real closely.
54:36:25 P I want you to burn for 11 seconds, then stop at 3.
54:36:26 C I wish you'd quit giving me these ... burns.
54:36:42 C 48.
54:36:44 C Then you can switch me to RATE COMMAND, aft.
54:37:00 C Okay. Start Comp. Start Comp. Push to 9 forward.
54:37:04 P ... 9. That's right.
54:37:06 C Okay. I'm in RATE COMMAND.
54:37:09 P Yes, I'm ready at any time.
54:37:11 C You count for me.
54:37:12 P Okay.
54:37:13 P Watch your stop at 38. Be ready to fire at 27.
54:37:23 P 7 seconds. You see it.
54:37:24 C Fire all the way.
54:37:25 P 4, 3, 2, 1,

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54:37:30 P FIRE.
54:37:35 C Count 11 seconds, man.
54:37:36 P Okay.
54:37:37 P 3, 2, 1,
54:37:40 P MARK.
54:37:45 P ... you have .9.
54:37:52 P Okay. Command up.
54:37:54 C Aft.
54:37:57 P That's right. Fire aft.
54:38:03 P Stand by and I'll help you with that.
54:38:08 P Still fire aft.
54:38:12 P A little more.
54:38:16 P Stand by. You're at .3 now.
54:38:20 C That's enough.
54:38:22 P Let me get another reading.
54:38:23 P We're right on it.
54:38:25 P That's it right there. That's zero.
54:38:26 C Okay. Hit the rest of them.
54:38:27 P I will.

HAWAII

54:38:32 CC Gemini XI, Hawaii.
54:38:33 C Wait.
54:38:34 CC Roger.
54:38:39 C What is it?

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54:38:40 P Zeros.

54:38:41 C Are they all zeros?

54:38:42 P Yes.

54:38:43 C Okay. That's all I wanted.

54:38:44 C Go ahead, Hawaii.

54:38:46 CC Roger. Just letting you know we're standing by.

54:38:49 P Roger. We just finished firing a burn and I'm going to activate the door in the TV set.

54:38:54 CC Okay.

54:39:13 CC Gemini XI, Hawaii. We're going to send two commands to the Agena. HORIZON SENSORS ON and GYRO RATE ON.

54:39:19 C Roger. It's all yours. You want me to turn the Encoder OFF?

54:39:20 C Radar's OFF.

54:39:21 CC It looks like it's off from the ground.

54:39:22 P Roger. The Radar's OFF.

54:39:23 CC Roger.

54:39:32 P No more Thruster Pilot Maneuvers. Roger. Hope there isn't.

54:39:35 C I didn't fire many.

54:39:38 P Did you hear it?

54:39:39 C Yes.

54:39:42 C Something go by at your window out there?

54:39:43 P Yes. Correct.

54:39:49 P ...

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54:39:51 P Let's turn around the other way.

54:39:53 C Now I am --

54:39:54 P Yes.

54:39:55 C -- it's pitching over the top just like ...

54:40:02 C ... there's too much in RATE COMMAND again.

54:41:43 CC Gemini XI, Hawaii.

54:41:45 P Go ahead.

54:41:46 CC All right. Will you give us a reading on Stack 2-Charlie, please?

54:41:48 P Roger. 2-Charlie is down at the bottom.

54:41:55 P Roger. It's at 0 amps, 0 volts.

54:42:04 CC Hawaii --

54:42:05 P ...

54:42:07 CC -- Say again?

54:42:12 CC Gemini XI, Hawaii. Might as well turn it off.

54:42:15 P Roger. Go along with it.

54:42:46 C Hawaii, Gemini XI.

54:42:48 CC Go ahead.

54:42:49 C We plan to say in ... mode until we get D-15.

54:42:52 CC Okay. ... mode.

54:43:29 C Hawaii, Gemini XI.

54:43:30 CC Go ahead.

54:43:32 C They must have shorted out because we never saw it go.

54:43:35 CC Okay.

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54:44:01 C We're going to go ahead and power-down a computer.
54:44:04 CC Okay.
54:44:09 CC We confirm you're powered-down.
54:44:12 C We went ... about going to Prelaunch here.
54:46:06 P Hello, Hawaii. How's the D-15 equipment looking?
54:46:09 CC Looks okay here.
54:46:12 CC We show your recorder monitor is operating normally.
54:46:14 P Say again.
54:46:15 CC We show recorder monitor operating normally.
54:46:19 P Roger.
54:52:17 C Is the Tape Recorder ON?
54:52:18 P Yes, the D-15 and watching your urine dump, particles going by. I've been photographing. Camera's start.
54:52:27 P ...
54:52:29 P I wouldn't put you on.
54:52:30 C No, I see a particle from here.
54:52:31 P Yes. I did, too, just now.
54:52:42 P It's urine particles.
54:52:44 P Pete dumped.
54:52:46 C Captured a B-50.
54:52:48 P Can't cut the noise; Recorder OFF.
55:02:12 P Roger. Pitching down below the ground. Horizon is coming into view but it's cocked at a 45-degree angle in the viewing monitor. You can readily see the cloud coverage. Fairly prominent thunderstorms to our left about 10 degrees.

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55:02:33 C Yes. You can definitely see the cloud coverage versus the water area.

55:02:39 P It stands out very well on this.

55:02:43 C Whee! Look at that!

55:02:45 C That's very good.

55:02:47 P Yes. I'm afraid to ...

55:02:48 C Why do you suppose it's rolled 45 degrees?

55:02:50 P I don't know. It's just the way it might be in there.

55:02:54 P I'm not going to be too concerned about that.

55:02:57 C That thunder actually looks like it's moving down this way, doesn't it to you?

55:03:01 C Maybe it's a distortion or something. The fact that we're not pointing straight and looking ...

55:03:10 C Can you get us a roll now?

55:03:13 P Is it rolling?

55:03:15 C Yes, it's rolling.

55:03:17 C Okay. Now I'll keep in the belly pan --

55:03:20 C What's our first task?

55:03:24 P First task is Section Track in this area.

55:03:28 C You want --

55:03:30 P And already --

55:03:31 C What the --

55:03:32 P ...

55:03:33 C ... There are some islands down there.

55:03:34 P The next track.

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55:03:35 P The next task.

55:03:37 C The next task.

55:03:38 P There is so much cloud coverage here I doubt seriously if you're going to see it through them.

55:03:46 P You can sure see those cloud layers.

55:03:53 C That's dangerous.

55:03:56 C It's really ... I see that ...

55:04:00 C ...

55:04:04 P You guys get back down there where you belong.

55:04:16 C Okay. I've got coastline coming up.

55:04:24 P It's quite a ways out there yet.

55:04:26 C I'll tell you one thing, you might get some good terrain photographs. Are we exposing any S-5's?

55:04:30 P South America.

55:04:31 C I don't think anybody's got any good pictures down that way. You might grab a --

55:04:35 P I got some over there tracking it. The Agena across it?

55:04:44 C Yes, with a different revolution and a different place.

55:04:49 P Yes. I ...

55:04:52 C So we got some film ... I've got a bet here after these two revolutions.

55:04:57 P ... around up there.

55:05:05 P How much film have I got to expose here - 30 seconds, right?

55:05:10 C That what you're supposed to get? Say, you can see the coastline on the scope.

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55:05:14 P Say, take a picture of coastline, readily visible.

55:05:18 C At 55:05:15.

55:05:20 P The coastline of South America, western coast.

55:05:22 C Except for the screwy roll angle on the tube here, you probably managed it pretty good.

55:05:28 P Yes.

55:05:30 C I want to see how much the terrain ...

55:05:32 P And it does have a bright spot in the center, which is kind of distorting, but you can very definitely see the cloud coverage over the ocean ends, the dark water and then the coastline very prominent.

55:05:51 C That's right.

55:05:53 P It should be.

55:06:01 P Look, Pete, you can actually see those small clouds.

55:06:03 C Yes. Can you see to make out the mountains?

55:06:07 P You sure can. Can't you?

55:06:11 C You sure you're not seeing - seeing clouds instead of mountains?

55:06:15 P No. See those little white - no --

55:06:17 C Yes.

55:06:18 P -- See those three clouds right there in front of you?

55:06:19 C I think they are dry lakes, Richard.

55:06:23 P If they are --

55:06:24 P -- yes.

55:06:25 C -- here are the three dry clouds. What you're

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seeing are those dry lakes down there.

- 55:06:30 C How about that, Kingfish?
- 55:06:31 P Sure is.
- 55:06:34 C Listen, that's spectacular.
- 55:06:37 P Sure are dry lakes. As we approach the coastline of South America, we're picking up several dry lakes here. We can track if you want to a little bit, Pete. Once you've found them you can - go down with Pulse. Keeping going down.
- 55:06:49 C I mean, ... keep the roll out of it.
- 55:06:52 C You're tracking pretty good in the middle.
- 55:06:53 P Yes. We're tracking fairly good in the middle - we're about an inch from the bottom. A series of dry lakes that are readily visible.
- 55:07:01 C Why don't you go ahead and take a shot at them.
- 55:07:03 P I am.
- 55:07:06 C Okay.
- 55:07:07 P Okay. That's enough task right at the moment.
- 55:07:08 C That's right.
- 55:07:11 C Going back to 30.
- 55:07:12 P Roger.
- 55:07:14 C I'll hold 30. That's a good tracking angle.
- 55:07:16 P And as we --
- 55:07:17 C Holy Christmas, look at how good you can see those on the tube.
- 55:07:20 C Of course, you have to realize there's great country.
- 55:07:24 P ...

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55:07:28 C Gone over some spectacular country anyhow.

55:07:31 C Look at those mountains, will you?

55:07:33 C I didn't see any of this when I - on our flight. It must have been at nighttime or something.

55:07:37 P Chile - look down here.

55:07:39 C Yes.

55:07:40 P Beautiful.

55:07:45 P Clear off in the waste country, as we scan across South America, we can see the mountains and saddles of valleys show up in the shadow. On the late afternoon the terminator is almost crossing this area as we're coming across and the cloud decks are clearly visible. Several dry lakes were noted as we hit the coastline.

55:08:17 C Are we crossing the end of the ocean over there?

55:08:19 P We will eventually.

55:08:20 C No, we haven't - -

55:08:21 P But not right now.

55:08:22 C - - run into these clouds right here.

55:08:23 P No, we are still on the land.

55:08:25 C Oh, yes.

55:08:27 C I think I better check this voice tape.

55:08:30 P Okay.

ROSE KNOT VICTOR

55:12:27 CC Gemini XI, RKV.

55:12:31 C Go ahead, RKV.

55:12:33 CC Roger. We'd like to ... Spacecraft. We'd like to have the Number 1 only, at this time, ON. We would

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also like the Secondary Loop with the A-Pump OFF and the B-Pump ON.

- 55:12:48 C Okay. We have it on the B, ON only.
- 55:12:54 CC Okay. Secondary B-Pump.
- 55:12:56 C The B-Pump and the computer ...
- 55:13:00 CC Roger.
- 55:13:06 C We really don't need our ... and we can power-in here.
- 55:13:10 CC Roger. Go ahead.
- 55:13:12 C ... Is this affirm?
- 55:15:13 P Don't see anything at all. It's the best picture I think I've ever recorded on the D-15 camera for about 10 seconds per shot and the Record, OFF. This thing looks like it's in bad need of adjustment.
- 55:15:34 C I suspect the flight of psi and the 0 g's are showing it has some effect on it or something.
- 55:16:44 P I don't see anything.
- 55:16:46 C That's too bad. There's nothing out there.
- 55:16:54 P Not a thing.
- 55:16:57 P Unless we're over water.
- 55:17:03 C There's got to be some clouds or something down there. I can't understand why we can't see anything.
- 55:17:15 C I don't see anything. Let me pitch up a little bit and see if you're really looking at the horizon.
- 55:17:17 P Oh, that was a bright light! I wonder what that was from.
- 55:17:22 C I'd guess the horizon.
- 55:17:25 P Yes. There's the horizon. Clearly visible and you

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can see the airglow.

55:17:27 C Why should it be the airglow? That's S-30.

55:17:30 P There's an airglow picture. Taking it now. Let me turn the camera on.

55:17:37 P 1, 2, 3, 4, and there's starlight above it.

55:17:39 C Let it go.

55:17:44 P Let's try another one. Thruster firing is being picked up on it, too.

55:17:50 C Yes.

55:17:54 P The thrusters. Thruster firing is coming in on top --

55:17:56 C Stars last night.

55:17:58 C I almost got the impression that they may be right about the airglow underneath washing out everything.

55:18:18 P And as we view the horizon we can see several large spots of glow - we are right on the horizon - which either may be thunderstorms or fires on the horizon.

55:18:25 C Boy, the stars are beautiful. We'll just test her the other way. Now, let's ...

55:18:46 CC Gemini XI, RKV. We'll have LOS in about 30 seconds.

55:18:49 C Roger. We're progressing with D-15.

55:18:56 CC Roger. We've noticed operation of it a couple of times.

55:19:08 C Now, I'll pitch straight down. Okay?

55:19:10 P Okay.

55:19:12 P I'll focus this to give us better visibility.

55:19:46 C Those coelliptic charts we have don't do anything for - for this will they?

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55:19:47 P Well.

55:19:48 C Yes. The ... always does that.

55:20:06 P You can still use it.

55:20:08 C What did you say?

55:20:10 P You can still use it.

55:20:13 C Still use what? The TPI?

55:20:18 P That's based on the angle and range-rate. That's all. Lets you know whether you are high or low.

55:20:25 C ... on it. ... can we use the radar failure?

55:20:27 P I don't know about that one. If it breaks we will let it go.

55:20:51 P Give me the water gun.

55:20:54 C See anything going by down there?

55:20:56 P No. Clouds maybe, blurry.

55:21:03 P I'm not seeing clouds go by. Do you?

55:21:08 C Listen, I couldn't tell you what - yes, there's the ground - I can't tell what it looks like.

55:21:22 P Turn that. Looks like it.

55:21:25 C ... what? It looks pretty good in color down there.

55:21:32 C Where are we, do you know?

55:21:34 P Yes. Roughly.

55:21:42 P Let me check our bearings. Let's see, half-way between South America and Africa.

55:21:54 P You're supposed to scan the sea conditions. If you see anything, pick it up.

55:21:58 C Okay. I can see some clouds going by down there.

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55:22:01 P Yes. That's right. Better watch the clouds.

55:22:13 C Let's turn the red light on. It's pretty clear actually. Lots better than I can see. I think that's pretty good. Looks like we're over a pretty solid bunch of clouds.

55:22:32 P Yes.

55:22:33 P Oh, there's something real shiny right there.

55:22:34 C Yes.

55:22:35 C Whatever it is - -

55:22:37 P Something moving straight down the scope on our left. A real bright spot. Not identified as a cloud, but flashing light, possibly.

55:22:49 P Cloud cover is still going by.

55:22:51 C I could not see it.
(Laughter)

55:22:56 P Kind of weird. Kind of weird.

55:23:07 C What did you say?

55:23:10 P Kind of weird. Now there's a pretty cloud picture.

55:23:15 C Yes. And I can't see it. That's for sure.

55:23:22 P I can't see it well. 5 seconds of recording clouds.

55:23:27 C Of course. You pretty well wiped out my night vision twice now. (Laughter)

55:23:41 P How do I light this scanner if I see something other than clouds, Pete? See what it comes up to be.

55:23:53 C Well, you ought to be able to see the water straight up.

55:24:00 P Straight up?

55:24:05 C I mean, straight down. I'm about 80 degrees left.

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- I better work my way back up a little bit.
- 55:24:09 P That's fine. Stay there.
- 55:24:13 P That's a good point. That's a pretty good picture.
- 55:24:32 C Have you lost control of the one in the back?
- 55:24:39 P I don't think so.
- 55:24:49 C There are all kinds of - -
- 55:24:52 P Clouds. Boy, there sure are. Can't see a doggone thing.
- 55:24:56 C We will be over Africa after a bit. I'm going to leave this point 80 degrees.
- 55:24:59 P You have a shade up to your window?
- 55:25:53 C No. I've got mine down.
- 55:26:15 C The problem is, will we be able to see that Agena tomorrow?
- 55:26:25 P Why not daylight?
- 55:26:32 C Oh. What was that that flashed and went by? Oh, I know what it was. It was a meteor.
- 55:26:41 P Hey! There's another one.
- 55:26:43 C Heck.
- 55:26:44 P I just got that better.
- 55:26:47 C Did you have the tube?
- 55:26:49 P Yes. But I didn't get a picture of it. Sure is. Saw it flashing by the tube, went right straight down in front of us.
- 55:26:53 C Well. Listen, that's not unusual. We'd see meteors come in at night and I'd forgotton all about them. That's what the heck it was.
- 55:27:01 P Yes. I didn't get it on this picture, but it sure

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was prominent on the tube.

- 55:27:04 C Man, you're going to have to scratch awfully fast to get it on the tube.
- 55:27:08 P I saw it though. I almost got it. I had my thumb on it and didn't get to push it. It was gone.
- 55:27:15 C That's what that was. A meteor.
- 55:27:17 C Very good. I saw it, too.
- 55:27:22 P Yes. So you did. You saw it, too. I don't even know where to look outside, so I just watched the scope and there it came. That was a thruster fire.
- 55:27:32 C Yes.
- 55:27:34 P I could see that. Nothing on the ground but clouds. Nothing prominent but clouds. Coming up on Africa. I want to get coastline here. Got your picture?
- 55:27:51 C ... clouds ...
- 55:27:52 P Hold it. There's a bright object in the scope running down the left-hand side and I'm not really sure what it is. Coastline of Africa is coming up with an island off to - to - just a little bit to the left. Crossing the coastline of Africa at this time. Did you see that, Pete?
- 55:28:13 C Yes. No. I didn't see what you did. I could see all kinds of lights on the ground there when we came up on Africa.
- 55:28:17 P Yes. We just crossed that one.
- 55:28:19 C You find something you want to - -
- 55:28:25 P Better expose that one for 15 seconds. Here's another one.
- 55:28:27 C Yes. Yes. Yes.
- 55:28:29 P Here comes a bright light down the center of the scope. Right down in front of us.

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- 55:28:32 C Is that - I --
- 55:28:34 P There's several of them - there are several lights in here.
- 55:28:37 C There are several towns. Now I can see the --
- 55:28:38 P Looks like camp fires. You can see the lights?
- 55:28:39 C Yes. And the way - I'm trying --
- 55:28:44 P Don't count on the marks other than just to brighten bright objects.
- 55:28:50 C If you take that tube out and rotate it so that objects cross the tube in terminal track, we'd both be able to figure out --
- 55:28:56 P Oh! There's a bright spot. I bet that's a big camp fire. I'm taking a shot of that.
- 55:28:59 C Wow! Yes --
- 55:29:05 P Look at the camp fires down there.
- 55:29:07 C Now you're seeing probably more than I can see. No, you're not either, when I get to a clean part of my window, but you're seeing much brighter.
- 55:29:13 P Yes. Change the scope so that it's looking directly this way. This is the way they're moving.
- 55:29:20 C Yes. Now. Oh, look at that! Man, you see - now you can see the clouds come in, too. I can - you can see the clouds rushing around, too.
- 55:29:27 P Okay. Here come clouds by in several objects. On the ground these bright spots are probably fires --
- 55:29:37 C ... might get a thunderstorm here in a minute. We're going to pass right over the thunderstorm. Lightning several times.
- 55:29:43 P ... several objects.
- 55:29:44 C See if you can get the thunderstorm. Those are

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clouds, right? Or are those cities.

55:29:46 P Those are probably clouds right there.

55:29:50 C I'm glad you could - oh, that was lightning --

55:29:56 P What was that? Lightning? Is your thruster firing?

55:29:57 C Lightning.

55:29:58 P Another one.

55:29:59 C Lightning.

55:30:01 P There are the thrusters.

55:30:04 C No. That was lightning.

55:30:05 P Lightning?

55:30:06 C Yes.

55:30:07 P There's some more lightning.

55:30:08 C That was lightning.

55:30:09 P I'm taking a picture right --

55:30:10 C Lightning.

55:30:11 P There's lightning.

55:30:12 C There's lightning.

55:30:13 P There's lightning again. On the scope.

55:30:15 C There's lightning.

55:30:20 P It's picking up very casually. About 10 seconds worth of that.

55:30:37 P Look at the lightning.

55:30:41 C Yes. Aren't we supposed to track something in here?

55:30:44 P Yes. We can track any one of these lights if you

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want to, but I don't know why you want to track them.

- 55:30:49 C I though they had search and track-type jazz.
- 55:30:53 P Well, let's see what they have for a timetable here. They have us scanning all the way across.
- 55:30:58 C Okay. That's what we'll do.
- 55:31:25 P Wonder why this picture is rotated 45 degrees in this tube?
- 55:31:32 C I don't know.
- 55:31:33 P See many fires out there now?
- 55:31:39 C No. But there is something that is going to go under that you might pick up. A rather large city. It's real dim but - I can see it.
- 55:31:53 P I'll tell you those fires on the ground really show up.
- 55:32:15 C There's a real tiny light. ...
- 55:32:37 C It's only about 20. ... cycle.
- 55:32:39 P Yes.
- 55:32:53 C Turn on the tape recorder for the ...
- 55:32:55 C What?
- 55:32:58 P Many fires. Here's a whole stack of fires down below us. I'll take a shot at that.
- 55:34:00 C A whole stack of fires?
- 55:34:01 P Yes. ...
- 55:34:03 C Man, I don't believe this is pointed in the same direction.
- 55:34:05 P Lots of fires. There's a real boss one right there. Yes, take a few seconds of that.

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55:34:17 C Now tell me if you've got a real, real bright one on your left.

55:34:19 P Yes. Just barely on my left.

55:34:21 C Yes.

55:34:22 P Very bright.

55:34:27 C Okay. Yes. Now you're going to come to a whole string of them.

55:34:31 P No, just pieces.

55:34:37 C Oh. I'm seeing some really bright ones.

55:34:41 P Man, there's some just off to the right of us. Just barely.

55:34:44 C All right. They should have gone right down the center of the tube. They should be right in the center of the tube.

55:34:51 P There's some off to the right, not quite in the center.

55:34:54 C ...

55:34:56 P Check 1, 2, 3, 4, 5 seconds exposure.

55:34:58 C MARK.

55:34:59 C Right in the center.

55:35:01 P Okay.

55:35:03 C Now. This thing is not boresighted very well. That's the one I want.

55:35:08 C I know this reticle's twisted. Turning the Recorder back to ON, right?

55:35:20 P I can sure see the lights down there. Clouds prominent.

55:36:15 P Sure pick up your thruster firing on this thing.

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55:36:27 C Where is that coastline of Africa? Should have gone across it.

55:36:38 C Do you see anything underneath us?

55:36:41 P No. Bunch of clouds. It's a little cloud coverage looks like is all.

55:36:44 C I think we passed the coastline. I don't see anything else out here.

55:36:49 C No. I take that back.

55:37:32 C ... cancels that out.

55:37:46 P Here's something. I've got an island over here to my left. I'm going to track it a little bit and it's just off to my left. Got 1, 2, 4 small landmarks just barely to the left. Coming into the center of the picture right now. Do you see anything there, Pete?

55:38:08 C No. Not through the rest of this.

55:38:09 P Well, let that go.

55:38:12 C I'll - I'll - -

55:38:13 P I'll let that go by and - -

55:38:17 C I can see a small light.

55:38:19 P Yes.

55:38:22 C - - small light. But most of my problem is again that this window is so dirty. Now you are going to cross a large town in just a second and it's going to be in here. Now wait a minute. You're really messing us up. Now which way are you going?

55:38:26 P Back-up.

55:38:27 C Okay.

55:38:30 P So we can get it back to the way - back to ORBIT again.

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- 55:38:34 C Yes. Yes. Now look, here's a large town --
- 55:38:36 P There's one. There's a beauty.
- 55:38:37 C Yes. Okay. Got him?
- 55:38:38 P Well, it just went by. There's the coastline. Taking a picture of the coastline right now. Just moving down the scope just a little bit to our right, swing back over and then it's coastline right in the center of the picutre. Coastline now is covered with clouds. Very good contrast between the water and the land.
- 55:38:58 P We're directly over the coastline right now. Crossing it now. And photographing the same. Okay. We've left the coastline and now are over water. Close your eyes a minute.
- 55:41:00 P Now we have clouds. The tape recorder is still on. Roger. It's 55:41:00. We are crossing the ocean between Africa and India and we're picking up cloud streaks on the TV monitor very clearly. Very clearly, short bursts of the cloud streaks as they appear on the scope.
- 55:42:15 P Are we just crossing a city? There's enough lights down there. Man-o-man, there they are! There they go right there. They may be cloud streaks ... Boy! They're sure blooming across right in front of us. I would presume that those are still clouds.
- 55:42:51 P And the task, as we approach India, will be one of scanning until we come up into the Calcutta area. We're on a tracking assignment. And then our night period will end. More clouds. Very prominent.
- 55:43:34 P Look at this. Look down.
- 55:43:35 C I can't see a thing.
- 55:43:40 C Look. There's one thing that's very obvious to me though. This thing - it only works good when you're almost straight down. It really doesn't work worth a hoot. I wonder if that has anything to do with the fact that it may be looking through more airglow at an angle.

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- 55:43:45 P It might be. It might be.
- 55:43:49 C As long as we stay in the 70 to 85-degree range, you get real good pictures in here.
- 55:43:53 C Yes, we must be over water. There's a ship or something there. No, that's clouds --
- 55:43:55 P No, that's clouds, I think. The way they are moving.
- 55:44:08 C Clouds ...
- 55:44:17 P It's hard to tell distinctive features on here. Either they're gross to begin with - you know - look like large cloud masses. Of course, these clouds aren't very large. Look like the scatter variety.
- 55:45:04 C We've got to restart the thing for reentry.
- 55:45:10 P They'll get to use this TV monitor in the morning.
- 55:45:13 C Yes. But that's going over my head. Get the Spacecraft stuff stowed for reentry.
- 55:45:25 C ... see ... anytime tomorrow we ... too.
- 55:45:27 P We are.
- 55:45:29 C I don't know. I'll just get them to update us on it. I'm showing about 12 percent down there. ... power actually. No, I imagine we used a few pounds per pass on this thing. Probably have to use 10 pounds or so from that 30 tomorrow. We've already gotten 30.
- 55:45:59 P Subtracting from the 30.
- 55:46:05 C As a matter of fact if we can just ... with this ...
- 55:46:10 P There come a few more clouds. I expect to see shoreline coming up here before too long. There's a pretty picture there I'd like to have taken a picture of. Clouds, clouds, clouds, clouds, clouds and more clouds. Doggone it! Oh, there's a bright

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one! That might be a fire down there. Do you see a fire straight down - it's gone beneath us now.

- 55:46:46 C Some large cities coming up here. Stand by for coastline.
- 55:46:51 P Here's a city. Here it is. There's probably a real large city. There appears to be the coastline coming through the scope.
- 55:47:08 P Where are we? Are we approaching India?
- 55:47:13 C Yes. We just passed a bunch of towns or did you miss it?
- 55:47:29 P What's that?
- 55:47:32 C That track.
- 55:47:35 P Yes. It's little bit to Calcutta --
- 55:47:37 C Calcutta ...
- 55:47:38 P Shouldn't we go across the river and be at the coastline just before daybreak?
- 55:47:56 P Man, there's a bunch of fires or that's a city out there. Took a picture of that.
- 55:48:27 C This thing is so filthy.
- 55:48:28 P It really is dirty.
- 55:48:34 C It's like your blind spot in your eye at night.
- 55:48:36 P Yes.
- 55:48:37 C If I get to looking out the center, this reticle should - I might as well fly right over New York City, I'd never see it.
- 55:48:46 P Let's see, let me get up here where I can track for you.
- 55:49:25 P Yes, all there are up here are just a few sparkling, like bright lights, and I can't tell whether they are little towns or they might just be great big

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fires down there.

55:49:31 C See any fires on the ground?

55:49:41 C Here comes the horizon though.

55:49:51 P Yes. Should be approaching the daybreak. Guess when we get there we ought to be crossing the coast-line. Oh, there was another meteor.

55:50:13 C It's crazy.

55:50:14 P Why?

55:50:15 C Oh, there's one of them.

55:50:16 P Wow! Look at that! What is that?

55:50:17 C What?

55:50:18 P That on our left? Just passed over us.

55:50:25 C I can't see anything.

55:50:29 P There's a blossom. Look at that.

55:50:32 P I'd say that's Calcutta.

55:50:34 C I can't see --

55:50:37 P What in the world is that reflected light on my window?

55:50:53 P I do believe that was the coastline that we crossed there.

55:51:01 C What do we do here? Stay head locked until next ...?

COASTAL SENTRY QUEBEC

55:55:55 CC Gemini XI, CSQ.

55:55:57 P Go, CSQ. Gemini XI here.

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55:55:59 CC Roger. Would like to get a listing from you of what you threw away after the stand-up EVA.

55:56:08 P Roger. We didn't throw anything away except fruit garbage.

55:56:12 CC Roger. Copy.

55:56:15 P We had just time to get the rack out of the left-hand foot well. That's still in here.

55:56:22 CC Okay. I have a PLA Update for you when you are ready to copy.

55:56:26 P Wait.

55:56:48 P Ready to copy.

55:56:50 CC Roger. Area 38-Delta: 59:43:29; 20 plus 32, 25 plus 31. Area 39-2: 61:20:02; 20 plus 10, 25 plus 38. Area 40-2: 62:52:55; 20 plus 05, 25 plus 32. Area 41-2: 64:28:41; 20 plus 01, 25 plus 51. Area 42-1: 65:56:16; 19 plus 44, 25 plus 29. Area 43-1: 67:43:16; 20 plus 08, 25 plus 54. Area 44-1: 69:06:39; 20 plus 15, 26 plus 09. Bank angles for areas are roll left 85, roll right 95. Weather in all areas is good and no Sep Maneuver.

55:59:05 P Roger.

55:59:11 CC And I have a Nodal Update for you.

55:59:16 P Ready to copy.

55:59:18 CC Roger. Node at 57:07:51: Rev 36; 200.1 degrees east; 0 hours, 44 minutes, right ascension. Over.

55:59:40 P Copy.

55:59:48 CC And that's about all I have for you this pass.

55:59:52 P Okay.

55:59:58 C We have a question for you.

56:00:00 CC Go ahead.

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56:00:01 C With that 2-Charlie shut down on the next fuel cell purge, do we purge in the normal manner?

56:00:13 CC That's affirmative, Gemini XI.

56:00:15 C Okay.

56:01:54 C CSQ, this is Gemini XI.

56:01:59 CC Go ahead, Gemini XI.

56:02:00 C Also, we'd like to get some idea of what you think is our total propellant aboard right now.

56:02:06 C It's down.

56:02:12 CC Stand by.

56:02:43 CC Gemini XI, CSQ.

56:02:46 CC Okay. It looks like you have about 70 pounds of fuel and 115 pounds of oxidizer.

56:03:05 C Thank you.

56:03:35 CC About a minute until LOS, Gemini XI.

56:03:38 C Roger.

56:03:44 C Tell them that the D-15 is progressing normally.

56:03:50 CC Roger. Copy.

HAWAII

56:14:15 CC Gemini XI. Hawaii standing by.

56:14:18 C Roger, Hawaii.

56:19:05 CC 1 minute until LOS. Standing by.

56:19:08 C Roger. We intend to complete the other half of D-15.

56:19:13 CC Okay. See you tomorrow.

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- 56:19:17 C Roger. Roger.
- 56:30:56 P Yes, turn it over. Turn the Tape Recorder to ON. We exposed approximately 6 minutes of film on that first night task.
- 56:31:00 C Turn on the tape recorder. We've got the Agena in sight visually and - oh - zero, zero, zero here.
- 56:31:12 P Which field?
- 56:31:13 C I have to check. Just because you see it over the bow. It will be right there again, too.
- 56:31:14 C It's bothering me. It's not in the right place.
- 56:32:05 P Why?
- 56:32:06 C Well, he's about ... 2 degrees yawed left, 2 degrees pitched up right now. Where is our bow?
- 56:32:12 P 2 degrees yawed right, 2 degrees pitched down.
- 56:32:15 C Is it really? It should be.
- 56:32:17 P It was to the right.
- 56:32:25 C Well, about 2 degrees right, about 1 degree pitched down right now. Gosh darn, he's loud and clear now. Absolutely loud and clear out there. Looks like a gosh darn golf course.
- 56:32:37 P Yes, I can see it.
- 56:32:40 C Hawaii? ...
- 56:32:53 P That's a little too far to the left.
- 56:32:58 P Sure, he's loud and clear. Got big things. I was looking too low. I better open and close on it and see --
- 56:33:12 C I wish we could just close on it and see what they've got him on. They've got him turned - they must have him turned 90 degrees to us. Right?
- 56:33:22 C Might be. Maybe that's the tether sticking out.

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56:33:29 P Gosh yes. Looks like I almost saw the tether flip-
ping in out there.

56:33:31 C That's what I say. I think that's what you're see-
ing. The sun is shining on the tether.

56:33:34 C ...

56:33:46 C Hand me the sextant when you get it out of there.
That's all I need right now.

56:36:05 P Sure did.

56:36:12 C ... Did you see it?

56:36:15 P Boy! That's making my eyes smart.

56:36:20 C What did you say?

56:36:40 P Going to make my eyes smart.

56:36:58 C What, that 20?

56:37:00 P Yes.

56:37:05 C Do you see them?

56:37:38 P I hear it.

56:37:39 C ... it's beginning to light up pretty well now.

56:37:40 P Yes. Sure is. I can pick out that spot there.

56:37:50 C ... How can you tell? You can see that gosh darn
group?

56:38:10 P ... Can you tell which way it was?

56:38:12 C What?

56:38:17 C ...

56:38:24 P We're off the coast of South America.

56:38:26 C Take a picture of that right now. We're right on
it.

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56:38:29 P We're right on the horizon.

56:42:53 C How about pitching down on that thing? That's in the middle of the darn bunch. It's a terrible mistake.

56:43:03 P Bad, bad, bad.

56:43:04 P We'll see that fellow again.

56:43:12 P Next pass we'll see how far away he is.

56:43:19 C With the horizon scanners ... shadow on side ...

56:43:21 P ... horizon scanner supposed to do? ...

56:43:24 C Well, turn it back OFF. We don't need it right now.

56:43:46 C Now, tell what we're supposed to do this pass.

56:43:51 P Same thing you did last one.

56:43:53 C See the book?

56:43:55 P No, I haven't.

56:43:58 C Well, that's a good question. ...

56:44:27 P Look down there, old buddy. We're supposed to be --

56:44:30 C Man, I am down there, good buddy.

56:44:32 P -- 210.

56:44:35 P Yes. Just leave it alone for awhile.

56:44:40 C Play with it awhile, it's filthy.

56:44:46 C That's our island.

56:45:22 P I can't get anything out of that.

56:45:24 C It'll take awhile to step through these filters or something.

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56:45:29 P Yes. We'll get it down there.

56:45:34 P Hey! There we go!

56:45:39 C What you've got is that the top half of the tube isn't working. There's something over it, like is there a door that's not open all the way?

56:45:46 P Could be.

56:45:47 C Is that what that is?

56:45:48 P What's that?

56:45:49 C I bet you the door isn't open all the way or something.

56:45:50 P Yes. Could be.

56:45:52 C There is something in the way of the tube.

56:45:54 P What else could it be?

56:45:56 C And look at all that stuff down there on the ground.

56:45:57 P Right.

56:45:58 C Right down there. It's ...

56:46:01 P ...

56:46:12 P It's doing real well.

56:46:36 C I better get the door open.

56:46:39 P Then how long will it take to warm up?

56:46:41 C It is already warm.

56:46:42 P It must go through a warm-up somehow or other.

56:46:45 C Yes.

56:46:51 C Oh boy, thunder.

56:46:58 P We're right back to where we were, just ground going by or clouds or something.

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- 56:47:12 C That's lightning on the ground you are seeing.
- 56:47:23 P Yes.
- 56:47:24 C Here we go. Quite a lot of lightning.
- 56:47:26 C Wow, are we passing over some big lightning!
- 56:47:28 P Photographing lightning clouds. At the present time big flashes of lightning. There's a real storm down there right now.
- 56:47:39 C Storms are in the same place as they were on Gemini V. Every time we got any late-time revolution - -
- 56:47:40 P Yes.
- 56:47:46 C Where are we? South America?
- 56:47:48 P Yes.
- 56:47:53 C Yes. It was the same place it was before.
- 56:47:55 P Look at those. Look at those storms.
- 56:47:58 C I wouldn't want to be driving your airplane through there.
- 56:48:03 P Boy!
- 56:48:12 C Okay. Back at it now. It says to track 30 seconds - there is an item here we didn't get to - and scan across North America.
- 56:48:53 C I thought we had mice in here and it's the tape recorder.
- 56:49:00 P What?
- 56:49:03 C It's pretty noisy.
- 56:49:07 P We're looking straight down on this TV monitor. The clouds sure wash everything else out, don't they?
- 56:49:15 C Roger. The clouds are showing up pretty bright on

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the monitor.

ROSE KNOT VICTOR

- 56:49:41 CC Gemini XI, RKV. We have nothing for you this pass.
We're standing by.
- 56:49:51 C All right, RKV. Could you ask Houston how far
behind the Agena we are? We were watching the day-
time out there and we were curious as to how far
we were seeing it.
- 56:50:00 CC Okay. They will have information on that statement.
- 56:50:03 C Thank you.
- 56:50:05 C Our ACQ messages show about 3 seconds difference.
- 56:50:12 P What's that? 12 miles?
- 56:50:15 C Yes.
- 56:50:17 C 1.1 miles a second.
- 56:50:22 P Okay. Just general TV on the - it's intensified,
the lightning strikes.
- 56:50:34 P Say, there are some fires down there. Identify
those things clearly. Right off the bat.
- 56:50:36 C Looks like we might be going across the coastline.
You know this monitor has a spot right in the middle
I can't get rid of.
- 56:50:46 P Seems like everyone I see did, didn't it?
- 56:51:03 CC Gemini XI, RKV. They say you are about 16.6 miles
behind it.
- 56:51:10 C Roger.
- 56:51:14 C Do they know whether they were opening or closing
yet?
- 56:51:41 CC Okay. They advise that you are gradually closing

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and that when you wake up tomorrow morning you should be about 13.9 miles behind them.

- 56:51:51 C Roger.
- 56:51:53 C Okay. Here comes a bunch of interesting subjects. It looks like we saw this the last time we were leaving the coast of South America, as a matter of fact.
- 56:52:03 P You couldn't have, though, because that's - -
- 56:52:05 C - - remember all this stuff.
- 56:52:06 P Yes. But - -
- 56:52:10 C Clouds, that's got to be clouds. They're pretty. I am going to take a picture of this for the using viewers at home.
- 56:52:19 P ... get to Africa.
- 56:52:21 C Got a little exposed film there to show what we are seeing ... seen on the TV as our coastline, South America, Africa, clouds and fires and lightning.
- 56:52:36 P Wow! Look at the lightning! The hair on the back of your neck.
- 56:53:08 C (Laughter)
- 56:53:09 P Come on. Give me a break.
- 56:53:10 C Oh, boy. Things are beginning to drag a little bit. What I need is a few hours of quiet sleep and I'll be ready to go again.
- 56:53:41 C Don't know what this is, but I'm taking a picture anyway. It looks like it might be cloud streaks.
- 56:53:45 P Then again, it might very possibly be something in the air, thruster firings, dust in your scope.
- 56:53:51 C If anybody's wondering why I am not saying anything, it's because I can't see anything out of my dirty window.

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56:53:58 P I can't see anything out of my clean window.
56:54:00 C Oh, look at that --
56:54:03 P Don't forget that you are - you're not adapted to looking in that boob tube there.
56:54:17 C Now, we're going further up in Africa, right?
56:54:31 P Yes.
56:54:32 C Along past South Africa. Just touched the coastline of Saudi Arabia.
56:54:40 C Yes.
56:55:07 C Yes. If I see something ... I'm not going to wait for you.
56:55:14 C Where are we supposed to direct it to?
56:55:22 P I don't know. When I see something interesting I track. Search and track all the way through here, all the way to Africa.
56:55:24 C We haven't gotten Africa.
56:55:26 C I tell you the only thing you want to track on that right now is, if you see a light down there that has to be a ship.
56:55:36 P Or an island.
56:56:00 C We sure have had some interesting cloud formations though.
56:56:05 C I sure don't see anything else.
56:56:41 CC Gemini XI, RKV. We'll have LOS shortly.

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56:56:48 CC Gemini XI, Houston standing by.
56:56:53 C Howdy, Houston. We're progressing with the last

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half of D-15.

56:56:54 CC Roger.

56:56:58 P Exposing this part of the film.

56:57:02 C I think we can say we're going to bat 100 percent for today.

56:57:22 P Clouds, clouds and more clouds. I don't see any - I should be in the cloud line pretty soon.

56:57:34 C I bet this has kept him busy on the ground today. Man, we've been humping as fast as they could hump.

56:57:37 P Certainly.

56:57:38 C Oh, yes.

56:57:41 C (Laughter)

56:57:58 P Come on. I have to map a coastline here. What time is it, 10:25?

56:58:17 P Well, that's not empty.

56:58:20 C Yes. Going to get fired down there in the middle of the ocean.

56:58:29 C 2 hours, 26 minutes into D-15 test. Approaching coast of Africa. Viewing clouds on the monitor.

56:59:19 CC Gemini XI, Houston. Could you give a PQI readout?

56:59:22 C Roger. I'm showing about 11 if I went down there and looked at it - if I look at it straight down it's showing about 10.

56:59:38 CC Roger. How has your Number 8 thruster been performing?

56:59:41 C It's set.

56:59:43 P How do you know that?

56:59:45 C I've been watching it.

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56:59:48 P Have you?

56:59:50 C Yes.

57:00:05 P So low.

57:01:07 C Don't forget that. Well, hit it again. See that. That's your roll hit. Watch. Put it in RATE. Put it in RATE. Now, hit the left yaw. See that.

57:01:22 CC Gemini XI, Houston. How did you say your Number 8 thruster was performing?

57:01:29 C Roger. It is still soft.

57:01:55 C Well.

57:02:02 P This is the Scan and Track test, but we don't see anything interesting.

57:02:19 C Houston, Gemini XI.

57:02:36 C It should do best around 70 degrees.

57:02:38 P Yes.

57:02:48 P Later on, we can take about 2 minutes of pictures.

57:03:00 C Is that all you have left?

57:03:01 P Yes.

57:03:02 C You take four for that - you have two left on D-15.

57:03:10 P Yes. Trying to show these people what I'm up against. Nothing but clouds.

57:03:20 C We haven't come to Africa yet, have we?

57:03:23 P I think I'll wait awhile ...

57:03:26 C Tape recorder, you are squeaking away!

57:03:36 C Look at that!

57:03:39 P Your light worked.

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57:03:53 C Okay. End of tape. I put this one cartridge in here already. Now, why do you suppose the light suddenly started to work?

57:04:02 C If it had only worked on M equals 1, we would have had a full tape of it.

57:04:14 C You recorded this one?

57:04:16 P No.

57:04:17 C Write down 51 in your book.

57:04:19 P What's the one before that?

57:04:20 C That's what it is, 51.

57:04:21 P What's the one you just took out?

57:04:22 C I haven taken it out yet.

57:04:23 P Oh.

57:04:24 C Okay.

57:04:38 P J5, 57:04:31 - with a new tape in the tape machine.

57:04:40 C This tape is going to work out about right, too, except I was getting - I never knew when I was running out of tape in the beginning, and I wondered why the light suddenly started working once again for no reason at all after two days.

57:05:10 P I believe that's the coastline ahead right there. That's another coastline coming up right now ... there it is.

57:05:15 C Boy, you've gone way by it.

57:05:17 P Yes, I know.

57:05:19 C Well, here, let's stop it then.

57:05:22 P Wait a minute, wait a minute, wait a minute.

57:05:24 C Here we go now. We are going the other way.

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57:05:31 C Man, you're looking at a - we went so far back so many times and rolled back going over the top and everything else during this ... I learned the hard way.

57:05:48 C There we go. ... feature. Now we're getting some light from Africa. Take a picture of those.

57:05:55 CC Gemini XI, Houston.

57:05:57 C Go ahead.

57:06:00 CC How's the Number 8 thruster been performing?

57:06:04 C It's still soft.

57:06:07 CC Roger.

57:06:10 C It's still putting out something, but we still have a roll with it. But it's all right. It's not bothering us.

57:06:12 CC Roger.

57:06:22 C We've got to wrap up the D-15 at the end of this night pass and I'd say I get 100 percent for today.

57:06:29 CC Roger. It looks that way from down here. How's the D-15 been going?

57:06:35 C It's performing very, very well.

57:06:51 C How's our fuel remaining look to you?

57:07:01 CC It hasn't changed since the last report we gave you, which was 70 pounds of fuel and 115 pounds of oxidizer.

57:07:10 C You know, but I mean does that look all right? Have we got enough?

57:07:21 CC Yes, right now you do.

57:07:24 P Boy, what a bunch of lightning that was!

57:07:42 P The contrasts in those big clouds like that are fantastic.

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57:07:47 CC Gemini XI, Houston.

57:07:48 P Go ahead.

57:07:52 CC Right now we show you about 16 miles behind the Agena. We expect tomorrow morning when you wake up, you'll decrease this difference to something around 14 miles.

57:08:00 C Okay. We saw - on this last pass in the daylight we could look at him - and we were just getting a sextant on him when we had to go back to D-15.

57:08:11 CC Roger.

57:08:24 C Could you tell me which way he's oriented? Is he oriented perpendicular to the Orbital Plane now?

57:08:37 P ... like the lightning.

57:08:39 C No, they turned right since there is a ... rate on. Remember?

57:08:46 P That is something interesting I picked out of the left side of the scope. It could be fires on the ground.

57:08:49 P Now, it just went off the left side.

57:09:09 C Gosh darn, that lightning's bright on that tube.

57:09:20 C The lightning completely bombs out the tube.

57:09:22 P Yes.

57:09:24 C It's just too bright.

57:10:05 C Turn on the tape recorder.

57:10:07 P Okay.

57:10:09 C Let that tape recorder run a little bit more.

57:10:11 P Okay.

57:12:55 C We should be getting up in there shortly.

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57:13:02 C Yes, man, I started -
57:13:03 P There it is right there.
57:13:05 C Get a picture of that.
57:13:07 P You want it back?
57:13:13 P Yes, tighten a little bit. The Persian Gulf is coming down there. The Red Sea - to the left, is Africa.
57:13:20 C Yes, there is cloud cover, that's all.
57:13:31 P ... the cloud cover. Let's go back the other way.
57:13:33 C Okay.
57:13:34 P Here we go. Across into Saudi Arabia just like-a-that.
57:13:43 C Very good.
57:13:55 P You're a little bit ...
57:13:58 C Go right down the coastline - there, Saudi Arabia right there.
57:13:59 P Yes.
57:14:19 P Right down the coastline. You're a little bit to the right. There you go. There. See it?
57:14:20 C That looks like a beach there.
57:14:21 P Yes.
57:14:24 C That's a beach for the city right there - or there might be lights along the coastline, or something.
57:14:29 P You see that?
57:14:31 C I can't see anything -
57:14:33 P Look at that - there's a good picture.
57:14:36 C Yes, I can. We are, we're going right up the

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coastline.

- 57:14:43 C Yes, it's better that way.
- 57:14:50 P These lines are running diagonally from top left to bottom right.
- 57:14:54 C Yes. How about that?
- 57:15:00 P Then comes the morning glow.
- 57:15:02 C Excellent. Only it's not morning yet. That's just the airglow going out there.
- 57:15:17 P Yes.
- 57:15:29 C What's that power-down time? 57 what?
- 57:15:31 P Well, that puts it 57:30. Here go some more pictures. The coastline - slip across the ocean here and go to India right now.
- 57:16:18 P This thing can see a lot more than I can, that's for sure.
- 57:17:38 C Man, I just got a new shot of life in me. I feel great. I think I realize we're on the back side of the curve.
- 57:18:08 P Hello, morning. Take a picture of the airglow, eastern airglow right there.
- 57:18:10 C Listen, let's get that right now. Want to?
- 57:18:12 P Yes, sure do. Let's do that. Can we do the airglow 360?
- 57:18:17 C I don't know. We can if you want.
- 57:18:24 C Well, that's one part of it. We'll get that done right now.
- 57:18:26 P Okay, let's get it.
- 57:18:34 C We won't be able to go around fast enough, will we? Or will we?

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57:18:36 P I don't think so. The sun will be up before we do.
You want the night airglow or is this star what you
want?

57:18:46 C The Gegenschein and - we better look at the book and
do it tomorrow.

57:18:53 C Yes.

57:19:00 P Look at those stars.

57:19:03 P ... stars right there. 5 seconds to the airglow,
eastern horizon, the rising sun.

57:19:06 C ... the light ...

57:19:10 P Sure is, sure is.

57:19:14 P Okay. I am power-down.

57:19:19 C Power-down right now.

57:19:20 P Yes, okay.

57:19:26 C ...

57:19:28 P What's the matter?

57:19:31 C ... power-down. Wait, turn the lights.

57:19:33 C I say power-down.

57:19:36 P Okay. Power TV tubes. Circuit breaker, OPEN.

57:19:41 C Circuit breaker is OPEN.

57:19:47 P Tape Recorder is ... ON. TV Monitor, 57:19:00.

COASTAL SENTRY QUEBEC

57:31:56 CC Gemini XI, CSQ CAP COM.

57:31:58 P CSQ, Gemini XI. Go.

57:32:00 CC Roger. Have you completed your purge yet?

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57:32:04 P That's affirmative. Just finished it. Pumping up the hydrogen pressure 67.

57:32:10 CC Roger. Okay. Will you turn your T/M switch to COMMAND position, please?

57:32:18 P CSQ, Gemini XI. You're cutting out. Say again.

57:32:21 CC Would you move your T/M switch to COMMAND position?

57:32:26 C T/M is in COMMAND.

57:32:38 CC Okay. I'm going to send you a TX.

57:32:41 C Roger.

57:32:46 CC Okay. I'm ready for your Crew Status Report.

57:32:54 P Roger. The Command Pilot had Day-4, Meal-B. The Pilot, Day-4, Meal-B - solids were left at both of those meals, and the Pilot had Day-3, Meal A. He shared some of that with the Command Pilot, and the Pilot ate most of the solids of the Command Pilot's meals. The water gun reads 1427.

57:33:35 CC Roger. You cut out right after 4-B. Could you repeat that, please?

57:33:46 P Roger. The Command Pilot, Day-4, Meal-B.

57:33:52 CC That's affirmative.

57:33:53 P Roger. The Pilot had Day-4, Meal-B, also. Day-3, Meal-A, the Command Pilot shared part of that meal. The Pilot also ate the solid foods of the Command Pilot.

57:34:08 CC Roger. Copied all that.

57:34:10 CC Would like to get a radiation reading from you.

57:34:16 C ... stored at the bottom. It's the completion of a high orbit today. Rad 11, that's the highest rad per hour was ... particular portion.

57:34:38 CC Roger. Understand.

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57:34:42 CC Okay. I want to advise you that the Agena is in the Orbital Plane with the TDA aft.

57:34:50 C Roger. Thank you. We've seen it.

57:37:25 P CSQ, Gemini XI.

57:37:27 CC Go ahead, Gemini XI.

57:37:28 P Roger. We've checked with the Flight Surgeon and the Command Pilot is desiring one more foxtrot before Retrofire.

57:37:35 CC Roger. Stand by.

57:38:02 P Thank you. Thank you.

57:38:07 P The Pilot thanks you and the Command Pilot thanks you. Thank goodness for small favors.

57:38:18 CC Gemini XI, CSQ. You're not going to take that now, are you?

57:38:23 C Negative.

57:38:55 CC Gemini XI, CSQ.

57:38:56 C Go ahead.

57:38:57 CC Okay. You want to turn your B-Pump ON in the Primary-A Loop?

57:39:04 C Roger. It's ON. We're in the process ...

57:39:09 CC Roger. We have about a minute to LOS here. This will be our last pass keeping you awake. We'll see you back in Houston.

57:39:17 C Yes. Can you give me ... Could you find out what time you're going to wake us in the morning? If we don't see you again, thank you very, very much. We really enjoyed it.

57:39:26 CC Roger.

57:39:59 CC Gemini XI, CSQ. They say about 64:40.

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57:40:04 C Roger, CSQ.

57:40:06 CC Roger. See you back in Houston.

57:57:10 C Okay. Time is 57:57:10. We may have gotten the manual heater on the H₂, but it's going up very slowly. Then all of a sudden, it shot up to 670. We caught it right at 60; it's 690 right now and it may have ended there. I hope not. It went a little higher than 670. We loused up.

57:59:55 C I have to correct my last on the tape. We were looking at the O₂ Quantity. We haven't gotten the H₂ up there yet. It sill reads 620 - had a slight louse-up twice on my part.

58:09:19 C Okay. We've got the H₂ pumped up to the right pressure now. It's looking good. It's reading ... shut it OFF ...

58:09:49 P Put that on the tape there.

64:31:55 C -- lined up on ... Trying to tell ... as we lined up on ... about 10 degrees, and 10 and behold, there was an Agena up there flashing away.

64:32:08 P It's Alining itself.

64:32:11 C See if Houston's up.

64:32:13 P Hello, Houston, Gemini XI. Are you powered up?

64:32:20 C It's way off to our left.

64:32:21 C What the heck is going on?

64:32:23 C Well, it takes it awhile to Aline.

64:32:30 P Coming closer to the bowl than that. To your left - give it a second ...

64:33:12 P It takes a good 15 minutes for the Platform to Aline itself, so I'm ... You got him out there.

64:33:18 P Yes. How come the platform lined up the way it did? ... up.

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64:34:14 P Okay. I wonder if we're doing everything right.
Let's bring up another light or two here.

64:34:24 C Okay. We're at SEF, PRELAUNCH, ... Secondary ...
Primary Drivers ... All these are ON, all these are
ON. Those are ON, ... Balance ON, Power's ON, ...
Computer --

64:35:01 P What?

64:35:08 C Where is he now?

64:35:14 P Over here.

64:35:15 C Way over, or --

64:35:17 P 7 degrees.

64:35:44 C -- I wish we could have ... plane, too.

64:35:51 P I believe we're left track ...

64:36:07 C Maybe we should wait and see. Houston didn't talk
to us from Antigua.

64:36:16 P Maybe it's not time for it yet.

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64:42:55 P Gemini. Houston, Gemini XI. Over.

64:42:59 CC Roger. This is Houston. Good morning.

64:43:02 P Good morning. You have permission to power-up now.

64:43:05 CC Roger. You're cleared to power-up and Aline the
Platform.

64:43:09 C We told you to power-up.

64:43:12 CC Okay. Thank you.

64:43:13 CC Say, I have whole bunch of stuff for you to copy
this morning, but before I get into it I want to
make clear that the primary purpose of this Intercept

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Manuever that you are going to be receiving is to evaluate the ground-vectoring capability. Over.

- 64:43:32 C Roger. Roger.
- 64:43:34 CC And also, we want you to do S-30 during this night pass prior to the end of the Intercept Maneuver. Over.
- 64:43:53 CC Gemini XI, Houston. Over.
- 64:43:57 C Go ahead.
- 64:43:58 CC Roger. Are you ready to copy? Over.
- 64:44:08 C Go ahead, John.
- 64:44:09 CC Roger. The first thing is to power-up and Aline the Platform. Want you to use the computer only for the Intercept Initiation Maneuver. That's at 64:40.
- 64:44:30 C It's 64:40 now.
- 64:44:36 CC That's at 64 hours over Canaries. Over.
- 64:44:39 C Okay.
- 64:44:41 CC And then the fuel cell purge is at the Canaries at 65 hours. Over.
- 64:44:50 P Roger, John. We already did that.
- 64:44:53 CC Roger. Fine. At 65:16 activate the D-15 equipment for S-30; that's Sequence 01. Over.
- 64:45:06 P Roger. At 65:16, Sequence 01 on the D-15 activated.
- 64:45:13 CC Roger. The S-30 is 65:46:33, at sunrise, to 66:23:05, Sequence 02 thru 10. Delete Sequence 08. Over.
- 64:45:38 P Roger. Delete 08. Copy that.
- 64:45:41 CC Roger. Your Intercept Initiation Maneuver will be given to you over the Canaries. And also, the time to start your event timer and 8-day clock for a

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Spacecraft TPI time will be given to you over there.

- 64:45:58 P Okay.
- 64:46:00 CC There's a procedure that you can use to get your - what would be your fourth Midcourse Correction with your radar not operating? You can take the Gemini X M equals 4 back-up charts for radar failure and enter the back-up charts with your event time that you started your clock at TPI, and you can calculate your up/down corrections. The Delta-V of the fourth Midcourse Correction when it's calculated, and divided by 3, will give you - will target you to head. Over.
- 64:46:43 P Roger, John. Was that for the calculated Rendezvous or the Coelliptic?
- 64:46:51 CC That's - that's with an Omega-T of 130 degrees scaled down. Over.
- 64:46:57 P Okay. Understand.
- 64:47:03 CC For your Retrofire Platform Alinement, your propellant cut-off is 2.5 percent. Over.
- 64:47:10 P Roger. 2.5 percent.
- 64:47:15 CC And have you got your radar on now? Over.
- 64:47:19 C Negative.
- 64:47:21 CC Roger. And if you turn it on and check it, the target's about 22-23 miles from you. Over.
- 64:47:29 P We have it visually.
- 64:47:30 CC Roger. And over Carnarvon we'd like to get an elevation and time to the target, just before sunset there, so that we can see how nominal your Intercept Maneuver burn was. Over.
- 64:47:52 P Roger.
- 64:47:58 CC You'll also be given an S-4, and activation time over Carnarvon.

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64:48:06 C Roger.

64:48:18 CC Gemini XI, Houston. Over.

64:48:20 P Go ahead.

64:48:21 CC Roger. We're going to call this an Agena flyby. Over.

64:48:25 P All right.

64:48:30 CC Roger. You have the OAMS propellant for it. Over.

64:48:33 P Roger. 2.5.

64:48:35 CC That's affirm.

64:48:49 CC Gemini XI, Houston. We have Nodal Update for you. Over.

64:48:52 P Roger. Go.

64:48:54 CC At 64:38:42: Rev 40; 95.3 degrees west; 0 hours 35 minutes, right ascension. Over.

64:49:11 P Roger. Copy.

64:49:40 CC Gemini XI, Houston. Do you have any questions about this error intercept? Over.

64:49:46 C I'm not sure I understand the event timer. You're going to give us time to start our event timer up from zero. Is that correct?

64:49:52 CC That's affirmative. It will be just exactly - it's a scale-down, 130-degree transfer and so if you start your event timer and enter it with the nominal times, you'll do your Midcourse - your back-up, Midcourse calculations occur at the nominal times. Over.

65:50:12 C Okay. And the Delta-V transfer is what, nominally zero?

64:50:16 CC Nominally zero. Yes, Sir.

64:50:24 CC You understand you'll be right in the middle of S-30 while TPI is going on. Over.

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64:50:29 C That's okay.

64:50:41 CC You have to understand that the important thing is to get S-30 and the only Midcourse you'll have a chance for is when you'll break out into the sunshine there toward the end. It will be the fourth Midcourse of the back-up solution. Over.

64:50:55 C Roger. Understand fourth Midcourse.

64:51:09 CC You guys do good work.

64:51:10 C Thank you.

64:51:29 CC Gemini XI, Houston. Over.

64:51:35 P Go ahead, John.

64:51:36 CC Roger. When you turn your L-Band ON, could you turn the Encoder ON, too? Over.

64:51:41 P Roger.

64:51:47 C L-Band is ON. The Encoder is ON.

64:51:52 CC Roger.

64:52:12 CC Gemini XI, Houston. Turn the Encoder OFF, please.

64:52:16 C Roger. Encoder is OFF.

64:52:27 CC Encoder back ON, Gemini XI.

64:52:29 C Say again?

64:52:31 CC Encoder, ON. Over.

64:52:33 C Encoder, ON.

64:52:38 CC We're at 30 seconds until LOS at Antigua.

64:52:42 C Roger. Say, is the burn going to be with the aft-firing thrusters, or what?

64:52:47 CC We have it with the forward-firing thrusters. Is that okay?

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64:52:50 C I guess so.

CANARY ISLANDS

64:57:14 CC Gemini XI, Canaries.

64:57:16 C Go ahead, Canaries. Gemini XI, standing by.

64:57:21 CC Gemini XI, we have you GO on the ground.

64:57:33 C Gemini XI, GO here.

64:59:11 CC ...

64:59:16 CC Core 25, 90087; Core 26, 00121; thrusters, forward; Spacecraft TPI at 66:06:49; Midcourse Correction is divided by 3.

64:59:55 C Roger.

65:00:02 C We'll start our Mid-timers at 66:06:49, counting up at zero.

65:00:08 CC That's 66:06:49.

65:00:12 C Roger. That's when we'll start our Mid-timer counting up.

65:00:16 CC That's right.

65:01:21 CC Okay. Gemini XI, this is Canaries. You can turn your Cryo switch OFF.

65:01:26 C Roger. OFF.

65:01:34 CC Gemini XI, Canaries. Do you have any questions on the maneuvers?

65:01:38 C Negative. Could you give us the time of next sunset?

65:01:43 CC Stand by.

65:02:13 CC Okay. Gemini XI, Canaries here.

65:02:16 C Go ahead.

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65:02:17 CC Your next sunset is at 65:46:33. Sunrise 66:23:05.
Did you copy?

65:02:38 C Roger.

65:02:55 C Canaries, Gemini XI.

65:02:57 CC Go ahead, Gemini XI.

65:02:59 C Roger. Now, on the nominal Range-Rate on the fourth Correction, we divide that by 3, too, beside our answer.

65:03:07 CC Negative.

65:03:08 C We're trying to see what we're going to be closing them at.

65:03:22 CC Gemini XI. Just go to your charts for the nominal and divide your answer by 3.

65:03:28 C Roger. Understand that, but I want to know if I'm really on the nominal. Will my closing rate damp be 1/3 of what it is on these charts?

65:03:38 CC Stand by.

65:03:52 CC Gemini XI, this is Canaries. We don't know for sure the answer to that one.

65:03:57 C Okay.

65:03:58 CC Should be close though.

65:04:00 C It should be close to 1/3 of what it would be nominally on the regular one - can stuff. Right?

65:04:07 CC Roger.

65:04:09 C Okay.

KANO

65:05:33 CC Gemini XI, Houston at Kano. Over.

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- 65:05:35 C Go ahead, Houston.
- 65:05:38 CC Roger. You understand, you don't divide the angle by 3, it's just the - it's just the Delta-V that you calculate. Over.
- 65:05:47 C Right. All I was interested in, John, was if we were completely nominal, what would our closing rate be there?
- 65:05:55 CC Roger. I think it would be pretty close to being R-dot of a 01 divided by 3.
- 65:06:02 C Okay. In other words, there is nothing we can hack out the window without a radar. I don't want to run into him.
- 65:06:08 CC No. No. That would be pretty slow, about 15 feet per second or so.
- 65:06:13 C That's what I like to hear. Okay.
- 65:06:41 CC At initiation, Gemini XI, you're going to be almost 25 miles behind. 24.9. Over.
- 65:06:48 C Okay. I thought we were going to close during the night. What happened?
- 65:06:55 CC Haven't determined that yet. Over.
- 65:06:57 C Say again?
- 65:06:59 CC Roger. We don't know the reason for that. Over.
- 65:07:03 C Okay. How about the out-of-plane? Are we exactly in plane with him?
- 65:07:14 CC 1 or 2 feet per second, Pete. It's in the node.
- 65:07:17 C Okay. Thank you.
- 65:07:30 P John, I'd say the reason for being behind, we're probably in a higher orbit than he is. How's that for a barnyard?
- 65:07:45 CC That's impossible, all right. Not very much though; you're almost level with him.

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65:07:54 P Yes. We saw him this morning in the darkness.
65:08:03 C If you guys will send a tanker up, we'll stay up
a little longer and do some more work.
65:08:13 CC Roger. The tanker's at Guam. It's on the water.
65:08:16 C Oh! Sorry about that!

CARNARVON

65:32:03 CC Gemini XI, Carnarvon.
65:32:05 P Go ahead, Carnarvon. Gemini XI here.
65:32:09 CC Roger. At 65:38 I'll give you a Mark to turn the
S-4 Temp switch OFF.
65:32:15 C Say again?
65:32:17 CC I say, at 65:38 I'll give you a Mark to turn the
S-4 Temp switch OFF.
65:32:22 C Roger.
65:32:24 CC How did the burn go?
65:32:26 C Just fine. We left 1/10th in 82 and 80, 81 was
zero.
65:32:32 CC Roger.
65:32:38 C We started to drop down on them right away. I can
see that he's got 3 degrees pitch-up on us right
now.
65:32:45 CC Roger.
65:32:48 CC And your elevation angle from the Spacecraft to
the Agena at the next sunrise will be 59 degrees.
65:32:55 C Is that pitch to be 59 degrees? Is that correct?
65:32:57 CC Roger.

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65:32:58 C Thank you.

65:33:01 CC Dick has a problem with sync on the D-15. Have him bring up Main Battery Number 3.

65:33:06 C Roger.

65:33:09 P Yes, it might do, Bill.

65:33:11 CC Roger.

65:33:16 P And Number 3 is coming on.

65:33:18 CC Roger.

65:33:20 C That did it.

65:33:21 P Cleared it up right away.

65:33:23 CC Roger.

65:33:31 C Yes. We need the computer, too, for S-30.

65:33:35 CC Roger.

65:33:37 C We'll run this way.

65:33:48 CC Main bus is back up to 24.

65:34:39 C Carnarvon, Gemini XI.

65:34:40 CC Go ahead.

65:34:41 C How is the Agena oriented now?

65:34:44 CC TDA north, lights on.

65:34:50 CC Minus 90.

65:34:52 C Roger. Minus 90.

65:37:56 CC I'll give you a Mark at 65:38.

65:38:00 C Roger.

65:38:01 CC MARK.

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65:38:04 C S-4 is OFF.
65:38:05 CC Roger.
65:38:39 C Say, Carnarvon, Gemini XI. Ask them if they - what they want us to do about this OX reserve thing back here. Just wait for our own reserve to need it?
65:38:51 CC Okay.
65:39:22 CC Gemini XI, Carnarvon.
65:39:23 C Go ahead.
65:39:24 CC Okay. You're fuel critical, so you probably won't get to the reserve tank.
65:39:28 C I'm with you.
65:39:33 CC And we're 1 minute to LOS.
65:39:36 C Roger. See you next revolution.
65:39:38 CC Roger.

TEXAS

66:15:06 CC Gemini XI, Houston at Texas. Over.
66:15:10 P Hello, Houston. Gemini XI here.
66:15:13 CC Roger. We show that at sunset - sunrise, you should have a pitch angle of about 60 degrees. Over.
66:15:20 P Roger. We still see him every once in awhile. Everything's going real well. We're just finishing up S-30.
66:15:27 CC Roger.
66:15:28 P We show about 9 percent PQI.
66:15:33 CC Roger.

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66:15:53 CC The Woomera tracking data, if you haven't done anything, indicate you'll be out in front of him, just where you want to be. Over.

66:16:04 C Roger.

66:16:28 CC We're going to get some tracking over the States and try to give you an estimate of what your fourth Midcourse should be - what we think it should be. Over.

66:16:37 C Okay. And if you've got one for us, you want us to burn yours?

66:16:45 CC If you get one, it will be in the ball park, I'm sure.

66:16:49 C Okay.

66:18:46 CC As soon as you finish S-30, you can turn that Main Battery to OFF. Over.

66:18:52 P Yes. We just turned it OFF prior to TV dump.

66:18:55 CC Roger.

66:20:10 CC Is H₂ in the AUTO position? Over.

66:20:13 CC H₂ Heater.

66:20:14 P Negative. It's been OFF.

66:20:16 CC Roger. Could you go to AUTO, please?

HOUSTON

66:20:34 CC Gemini XI, this is Houston. Say again. Could you select AUTO on your H₂ Heater? Over.

66:20:39 P Well, we did. Roger.

66:20:40 CC Roger.

66:21:00 CC Gemini XI, Houston. Have you made any corrections yet? Over.

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66:21:04 C Negative.

66:21:05 CC Roger.

66:21:10 P No corrections.

66:21:22 P How does it look?

66:21:27 CC Looks good right now.

66:21:48 P I have a problem here, John. My window is so greasy that I can't see them through the reticle, so I have to use a reticle with my left eye and track them with my right eye.

66:22:05 CC Roger.

66:22:07 P Grease spots right in front of the reticle.

66:22:43 CC Bet you'll be able to see him okay at sunrise, grease or no grease.

66:22:48 P Okay.

66:23:05 P Now he's at 55.2 degrees.

66:23:08 CC Roger.

66:23:16 P 55.8.

66:23:24 C He's coming out of sunrise right now.

66:24:09 P Houston, Gemini XI.

66:24:11 CC Go. Over.

66:24:13 P Say, John, all I'll be able to get is enough dial correction for this thing.

66:24:17 CC Roger. We'll try to calculate your fore/aft down here. Over.

66:24:21 P Okay.

66:25:38 P Houston, Gemini XI. How do you hear on VOX?

66:25:41 CC Read you loud and clear.

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66:25:43 P Okay. See if we could use it a little bit.

66:25:48 P 3 minutes.

66:25:55 P 3 minutes; his jet angle is 64.3 degrees.

66:26:02 CC Roger.

66:26:12 P Boy, is he bright!

66:26:29 CC Gemini XI, Houston. Over.

66:26:31 P Go ahead, John.

66:26:32 CC Roger. We show 6 forward, 2.4 right and nothing up/down. Over.

66:26:41 P Understand 6 forward, 2.4 right and 0 up and down. Is that correct?

66:26:48 CC Roger. And that time of application is 66:30:36. Over.

66:26:55 CC I'll say again. 66 hours plus 30 plus 36.

66:27:00 P Roger. 66:30:36.

66:27:59 P Now a 5-minute break and up front.

66:28:02 P Yes. That's it.

66:28:11 P Break out the ...; that's too bright.

66:28:15 CC Gemini XI, Houston. Over.

66:28:16 P Roger.

66:28:17 CC Change that 2.4 right to 2.4 left. Over.

66:28:20 P I think you were right the first time.

66:28:22 CC Yes. I rather think so too.

66:28:28 CC You better look at it out there.

CANARY ISLANDS

66:31:34 P Tether. See it floating around?

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66:31:38 P They have us, Pete.

66:31:41 C Straight up over top of it. ...

66:31:45 P (Laughter)

66:31:49 C Looks like it doubled back on you.

66:31:51 C What does it read?

66:31:54 P Okay. 6 percent.

66:32:02 CC Gemini XI, Canaries.

66:32:04 P Go, Canaries. Gemini XI here.

66:32:06 CC Okay. We show both vehicles as GO. We're standing by.

66:32:08 P Roger.

66:32:23 CC Gemini XI, Canaries. Have you made your Midcourse?

66:32:26 C That's affirmative and we had 0 up and down for correction. We added 6 feet forward.

66:32:33 CC Roger.

66:32:34 C I'm close enough to see that the tether has stopped moving. It's standing straight up - like it's in the gravity grade.

66:32:40 CC Roger.

66:32:41 P Look at him in that kind of lighting.

66:32:45 C Put your eye out.

66:33:14 P Now it's normally pretty slow.

66:33:40 P It isn't the shape of the thing.

66:33:55 P ... these sextants.

66:34:01 CC Roger.

66:34:05 C That darn tether is just sitting in a gravity grade.

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66:35:12 C The tether is straight up and down.

66:35:17 CC Roger. We copy all that, Gemini XI.

66:35:36 CC It's down on that gage ...

66:35:57 CC Put 2 - 42, 2 degrees.

66:36:02 C Listen, I can look - -

66:36:04 P Rendezvous book.

66:36:13 CC 42 degrees is 8000 feet.

66:36:21 CC ... that's 65.

66:36:29 CC That was 3000 feet when I told you, Pete.

66:36:52 CC Okay. Mark 2000 feet.

66:36:56 CC Gemini XI, Canaries.

66:36:58 C - - Go ahead.

66:37:00 CC Would you turn your Encoder to OFF so we can turn the Agena recorder on for you?

66:37:13 CC Okay. You can turn your Encoder back to ON.

66:37:18 CC Gemini XI, Canaries.

66:37:19 C Roger. Wait.

66:37:25 P Are you doing all that braking?

66:37:27 C Yes.

66:37:52 P Mark 1000 feet. You did it in 55 seconds. That's 15 feet a second.

66:38:01 P Put it down.

66:38:02 P That's the best I can give you. That's all I can give you now.

66:38:11 P That's 1000 feet. How's that for a sextant reading?

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66:38:15 C Canaries.

66:38:17 CC Go ahead, Gemini XI. This is Canaries.

66:38:19 C Are you reading all that?

66:38:20 CC You're intermittent on your VOX.

66:38:24 C ... we're here. We're home free and we're just sliding in there very pretty now.

66:38:58 CC Everybody at Houston is real happy with that, Gemini XI.

66:39:03 C He's not any happier than I am, or Dick.

66:39:07 CC Beautiful!

66:39:09 CC Flight keeps repeating, beautiful.

66:39:47 CC Gemini XI, you're just about to our LOS. Everything's looking real good and we copy your PQI as 5 percent remaining.

66:39:54 C I'm still braking a little bit, but we're here, about 50 feet out.

66:39:58 CC Roger. Understand. 50 feet out.

66:40:12 CC We'd just like to let you know we think that was a great flyby.

66:40:22 CC Gemini XI, Houston.

KANO

66:40:32 CC Gemini XI, Houston. Over.

66:40:34 C Go ahead.

66:40:35 CC That's tremendous, you guys! That's a wonderful flyby!

66:40:43 C Okay. We're Stationkeeping. Do you want us to do this again when we come by?

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66:40:54 CC Want to do another one?

66:40:57 C (Laughter) Want to try one for 3 percent?

66:41:32 CC Gemini XI, Houston. Over.

66:41:34 C Go ahead.

66:41:36 CC We're going to give you a Mark to activate the blood package at 66:43.

66:41:43 C Okay.

66:41:45 CC And then all you have to do is a 3-feet-per-second Retrograde burn any time before Carnarvon, which we're showing coming up at 67:10 about.

66:41:56 C Okay.

66:42:07 CC Want to go a C-Reentry CONTINUOUS and C-Adapter COMMAND.

66:42:14 C 66:43:00, John?

66:42:17 CC Affirmative.

66:42:35 CC 25 seconds.

66:42:56 CC 5, 4, 3, 2, 1

66:43:01 CC MARK. 66:43.

66:43:04 C Roger.

66:43:53 C Houston, Gemini XI.

66:44:01 CC This is Houston. Go.

66:44:03 C The only thing we haven't found is the docking bar.

66:44:07 CC That's great! Can you go C-Reentry to CONTINUOUS, D-Adapter to COMMAND? Over.

66:44:15 C Roger.

66:44:30 CC Roger. And we'll require a Crew Status Report any time after you eat today. Over.

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66:44:36 C Roger, John.

66:45:14 CC Gemini XI, Houston. Over.

66:45:16 C Go ahead.

66:45:19 CC Roger. We have a request here to repeat any part of the sequences of S-30 performed on the previous night, at your discretion, to determine the effect, if any, of close-proximity, thruster firings on the optical surface of D-15 equipment.

66:45:38 C Okay. We'll look at it when we go into the dark side here.

66:45:42 CC Roger. And then record the sequences performed; the time for that would be Sequence 01 at 66:55 and then the rest of it at 67 hours and 25 minutes, which is about sunset.

66:46:10 CC Gemini XI, Houston. 30 seconds to LOS.

66:46:14 C Roger. You want us to perform the 3-foot Retrograde any time before Carnarvon. Is that right?

66:46:19 CC Right. Which is about 67 hours and 10 minutes.

66:46:32 CC That was great, Pete!

66:46:35 C Say again?

66:46:36 CC That was tremendous!

66:46:37 C Thank you.

66:46:39 C Maybe we can work the sextant.

66:46:41 CC Roger.

66:46:47 CC He's a good man to have.

67:07:40 CC Gemini XI, Carnarvon.

67:07:43 C Go ahead, Carnarvon.

67:07:45 CC Roger. How did your SEP burn go?

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67:07:47 C Just fine.

67:07:49 CC What time did you burn?

67:07:53 C Sorry about that. I didn't write that down. Did you want that?

67:07:58 CC That's all right.

67:08:11 C Be advised that we've programmed Module 4 and verified it.

67:08:16 CC Okay.

67:08:22 P We are currently restowing, alining SEF, and will take a last look at the D-15 and then go BEF for final alinement.

67:08:31 CC Roger.

67:09:20 CC Gemini XI, Carnarvon.

67:09:22 C Go ahead.

67:09:23 CC What time did you bring back up Battery 3?

67:09:27 C Well, we brought the batteries back up when they asked us to look at it. And we were Stationkeeping on the Agena.

67:09:38 CC Okay.

67:09:45 C I just turned it off again now.

67:09:47 CC Roger.

67:09:52 C I'll bring it back up when we look at D-15 again.

67:09:56 CC Okay.

67:10:02 CC Would you give us a PQI readout?

67:10:07 C As near as I can see, Bill, it's somewhere between 4 and 5 percent.

67:10:11 CC Okay.

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67:11:01 C Carnarvon, Gemini XI.
67:11:03 CC Go ahead.
67:11:05 C As best as I can determine, we're stowed in the configuration as published for Reentry, except the extra items we've jettisoned.
67:11:15 CC Roger.
67:12:56 P Bill, we have two more passes with you, don't we?
67:13:00 CC That's affirm. 43 and 44 and then the long ride.
67:13:05 C Okay. Trying to figure out what we're hurrying for. I thought we were on our next to last pass.
67:13:23 P Bill, Module 4 is loaded and verified and we're ... in PRELAUNCH.
67:13:27 CC Okay.
67:13:43 CC Have you turned D-15 on yet to warm it up?
67:13:47 P That's negative. We can't now. We're getting night horizon out here very shortly.
67:13:52 CC Roger.
67:15:04 CC We're 1 minute to LOS, Gemini XI.
67:15:06 P Roger, Bill. See you next pass.
67:15:08 CC Roger.

CANTON

67:28:57 CC Gemini XI, Houston at Canton. Over.
67:29:00 P Hello, Houston, Gemini XI. Read you fine.
67:29:04 CC Roger. A target of opportunity for S-30 is the Agena. Over.
67:29:11 C Say again?

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67:29:13 CC Roger. For S-30, recommend target of opportunity
is the Agena. Over.

67:29:18 C Roger. The Agena.

67:29:35 C Hello, Houston, Gemini XI.

67:29:39 CC Should be about 4 miles ahead of you there, Pete.

67:29:45 C Roger. We don't have enough gas to do a ... but
we could do a buster.

67:29:59 CC Roger. Say again your last? Over.

67:30:01 C Roger. I say again, we have enough fuel to do a
buster but not ...

67:30:10 CC Roger.

67:30:40 CC Gemini XI, Houston. Spacecraft is 4 miles ahead
of and below the Agena. Over.

67:30:50 P Roger.

67:30:53 C Roger. We're lining the BEF. Do you have the ACQ
lights on?

67:31:00 CC Roger. The ACQ lights are on. Over.

67:31:15 CC Gemini XI, Houston. Over.

67:31:17 C Go ahead.

67:31:19 CC Did you put your Antenna Select to REENTRY? Over.

67:31:24 P Say again, John?

67:31:27 CC Your Antenna Select to REENTRY now. Over.

67:31:29 C Roger. Antenna Select REENTRY. It has been.

67:31:39 CC Roger.

GUAYMAS

67:46:34 CC Gemini XI, Houston at Guaymas. Over.

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67:46:38 C Go ahead.

67:46:41 CC Roger. We're going to activate - deactivate the neurospora blood package at 67 hours and 53 minutes.

67:46:55 C Roger. Standing by for your call.

67:46:57 CC Roger. That's the S-4, Mode C.

67:47:03 C Roger.

67:47:26 C Houston, Gemini XI.

67:47:27 CC Go ahead. Over.

67:47:31 CC This is Houston. Go ahead.

67:47:32 C Want us to deactivate both packages. Is that correct?

67:47:36 CC Roger. Both packages.

67:47:38 C Okay. We'll stand by for your call.

67:47:56 CC Gemini XI, Houston. Over.

67:47:58 C Go ahead.

67:47:59 CC Roger. Request a water gun count for our weight computations. Over.

67:48:03 C Roger. Coming up.

67:48:11 C 1567.

67:48:14 CC Roger.

67:48:46 C Houston, Gemini XI.

67:48:48 CC Go ahead. Over.

67:48:49 C Roger. We've completed the Flight Plan. We're all stowed; we're ready to come home one revolution early.

67:48:58 CC That's not fair!

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67:49:03 C Hey, John! Change our water guns, Pal. We've been drinking. 1574.

67:49:07 CC Roger.

67:49:10 C Whoops! 75.

67:49:12 CC Roger. Have you had a chance to eat yet? Over.

67:49:17 C Say again?

67:49:18 CC Did you get a chance to eat yet? Over.

67:49:20 C No. Just that this morning. I don't think we will.

67:49:23 CC Roger.

TEXAS

67:51:51 CC Gemini XI, Houston. Have you got a Sleep Report for us? Over.

67:51:55 C Actually passed that to Carnarvon, but we'll tell you. We slept about 4 hours last night, very well.

67:52:01 CC Roger.

67:52:42 CC 20 seconds to deactivation.

67:52:46 C Roger.

67:52:58 CC 4, 3, 2, 1

67:53:01 CC Deactivate.

67:53:05 C Roger. Both of them are done.

67:53:43 C Houston, Gemini XI.

67:53:46 CC Go ahead. Over.

67:53:48 C Tally-ho! There's the Agena! He's about 12 o'clock, up 30 degrees.

67:53:53 C I'd like to pass one other thing to you. I had a

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decided impression on the Rendezvous that I wasn't getting all the thrust that I should get out of my down-firing thruster.

- 67:54:13 CC Roger. Number 16? Over.
- 67:54:16 C Yes. Down-firing thruster.
- 67:54:18 CC Roger.
- 67:54:25 CC Was it just like it was on the first Rendezvous? Over.
- 67:54:28 C Was that the one I complained about before?
- 67:54:32 CC Believe so.
- 67:54:33 C Say again?
- 67:54:34 CC That's affirmative.
- 67:54:36 C Yes. I couldn't remember whether it was the lateral one I complained about before, or the down-firing jet. I just don't think I was getting all out of it that I should have been getting.
- 67:54:45 CC Roger.
- 67:54:48 C I guess it'll show up on the records. Right?
- 67:54:51 CC Roger. It was the down-firing one before. Over.
- 67:54:53 C Yes. Well, had the same problem this time.
- 67:55:16 CC Gemini XI, Houston. Your cabin pressure is down to about 4.95 below the regulation pressure we've been seeing on it. Over.
- 67:55:25 C Okay. You say it's .495?
- 67:55:29 CC 4.95.
- 67:55:31 C .95.
- 67:55:35 C John, I can't tell any difference on our gage, but we'll watch it.

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67:55:39 CC Roger.

67:55:51 CC Gemini XI, Houston. What was your position relative to the target when you started braking? Over.

67:55:57 C You mean on the ball?

67:55:59 CC Affirmative.

67:56:00 C I was just slightly out in front of him, about 95, 100, 105, 110 degrees.

67:56:07 CC That's about perfect, isn't it?

67:56:09 C Yes. It worked out just like we tried it a couple of times.

67:56:15 CC That's outstanding!

67:56:16 C Coming up about the same place.

67:56:20 CC Can't beat that!

67:56:22 C No, after the last correction. Really, he was inertial almost all the way in, John. Just changed - had to change the needles once because Dick dumped the computer on me, but otherwise, I wouldn't have had to do that.

67:56:35 CC Roger.

67:56:38 P Didn't want him to have too much help.

67:56:42 CC Roger. How does that Navy man handle that sextant?

67:56:47 C Like a dream, John.

67:56:50 CC Roger. I heard that R-dot.

67:56:54 P What did you think about it?

67:56:56 CC 55 feet a second.

BERMUDA

68:02:43 CC Gemini XI, Houston. 1 minute 30 seconds to LOS at

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Bermuda.

68:02:48 C Roger, Houston.
68:02:49 P We'll see you next pass.

CANARY ISLANDS

68:07:32 CC Gemini XI, Canary.
68:07:34 P Go, Canary. Gemini XI here.
68:07:36 CC Okay. We show you GO on the ground here. I have a PLA Update for you when you're ready to copy.
67:07:45 P Roger.
68:07:47 CC Okay. Area 45-1: 70:41:38; 20 plus 10, 26 plus 36. Area 46-4: 73:33:03; 20 plus 09, 26 plus 02. Area 47-4: 75:08:27; 20 plus 15, 26 plus 11. Area 48-4: 76:44:08; 20 plus 22, 26 plus 29. Bank angles all areas: roll left 85, roll right 95. Weather good in all areas. No SEP Maneuver required. Did you copy?
68:09:32 P Roger. Copied everything but the 45-1.
68:09:35 CC 45-1: 70:41:28; 20 plus 10, 26 plus 36. Did you copy?
68:09:52 P That's affirmative. Thank you.
68:09:54 CC Okay. That's all we have for you this time. We'll see you next time around.
68:09:58 P Roger.

KANO

68:15:52 CC Gemini XI, Houston at Kano, standing by.
68:15:56 C Roger, Houston. We are taking a little snappy nap.

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CARNARVON

68:43:18 CC Gemini XI, Carnarvon.
68:43:20 C Go ahead.
68:43:22 CC I've got some information for you on 45-1.
68:43:25 C Okay. We're standing by to copy.
68:43:31 CC Your pitch gimbal at 400K will be 92. Your horizon at Retro will be dark and light at 400K. Begin blackout, 22 plus 40; end blackout, 27 plus 56. REP of drogue, 29 plus 41; REP of main, 31 plus 15. Your Retro pitch angle is minus 20 degrees.
68:44:13 C Copy.
68:44:18 CC We don't have anything else for you. If you need anything, give me a shout.
68:44:22 C Roger.
68:44:23 C Do you know what time you'll be giving me, over Carnarvon, for my event timer count-down?
68:44:32 CC We'll update you over the States on that.
68:44:34 C Thank you.
68:50:40 CC 1 minute to LOS.
68:50:42 C Roger. See you next trip.
68:50:45 CC Roger.

CANTON

69:02:48 CC Gemini XI, Houston at Canton. Over.
69:02:50 C Gemini XI, go ahead.
69:02:54 CC Roger. We have some ground data that show Thruster Number 6 - that's your left pitch-up thruster - is

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a little soft. Did you notice anything? Over.

69:03:04 C Negative. We've been in Plat mode, but we haven't specifically noticed it.

69:03:11 CC Roger. No sense checking it now.

69:03:13 C Okay. We missed it a little bit.

69:03:27 P Yes, John. It just varies very slightly though.

69:03:31 CC Roger.

69:10:06 CC Gemini XI, Houston. 1 minute, 30 seconds to LOS at Canton.

69:10:13 C Gemini XI. ...

69:10:18 CC Say again, Gemini XI. Over.

69:10:27 CC This is Houston, Gemini XI. Gemini XI, Houston. Say again. Over.

69:10:42 CC Gemini XI, Houston. Say again. Over.

69:10:47 C This is Gemini XI. Say again.

69:10:50 CC That's what I thought you said.

69:10:56 C We can't read you, John. Say again.

69:11:00 CC Roger. We'll get you over the States. Over.

HAWAII

69:12:33 CC Hawaii, standing by.

69:12:36 C Roger, Hawaii.

69:12:38 P We're in the process of checking our RCS.

69:12:41 CC Roger.

CALIFORNIA

69:20:00 CC Gemini XI, Houston at California. Over.

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69:20:10 CC Gemini XI, Houston at California. Over.

69:20:37 CC Gemini XI, Houston at California. Over.

69:21:01 CC Gemini XI, Houston. Over.

69:21:11 CC Gemini XI, Houston. Over.

69:21:14 C Go, Houston. This is Gemini XI.

69:21:17 CC Roger. We have some information for your TR minus 115 Pre-Retro Check List. Over.

69:21:23 C Roger. Go ahead.

69:21:25 CC Roger. GET RC: 70 plus 41 plus 36; RET 400K, 20 plus 12: RET RB, 26 plus 39. Bank left 50; bank right 60. Your begin blackout, end blackout, drogue and main times do not change from Carnarvon. Normal IVI's 225 aft, 115 down. Say again, 305 aft. Over.

69:22:12 C Roger.

69:22:14 CC 115 down. Initial deflection bank angle at 0, 225 up. At 55 degrees, 72 up. At 90 degrees, 70 down. Your 400K pitch angle did not change and your pitch angle at Retrofire, minus 20 degrees.

69:22:52 C Roger. I have all that, John.

69:22:54 CC Roger. You'll have a dark Retrofire and at Retrofire Nunki in Sagittarius will be 20 degrees above the Retrofire point - above the horizon. Over.

69:23:10 C Roger.

69:23:13 CC Right on the boresight.

69:23:15 C Roger.

69:23:25 CC Your MDIU quantities are as follows: Address 03, 65951. That was Address 03. Over.

69:23:40 C Roger. 03.

69:23:42 CC 04, 30327; 05, 5792; 66, 34099; 07, 66238; 08,

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40331; 09, 15548; 10, 02416; 11, 29000.

69:24:33 C This is Gemini XI. Roger. Copied.
69:24:36 CC The weather in Area 45-1 is 2000 scattered and 10 miles. Wind is 140 at 15 knots; wave height, 2 to 4 feet; the altimeter setting, 3000. The recovery call signs - the ship is the Guam and there are two aircraft in the area - Air Boss - call sign, Air Boss. Over.
69:25:08 C We copied.

HOUSTON

69:25:33 CC This is - Gemini XI, Houston. If you get a chance, can you turn your Main Batteries ON, and check them, and give us a voltage readout? Over.
69:25:51 C Do you want to bring them on the line?
69:25:52 CC That's affirmative. Over.
69:25:55 C Roger. They all checked out at about 22 volts.
69:25:59 CC Roger.
69:26:06 P Hey, I've got another friend out here besides the Agena flying to my left and down, and apparently, closer.
69:26:18 CC Houston. Roger.
69:26:25 CC Gemini XI, Houston. We'll send you that load now so you can check your MDIU quantities and then the TR will come up to you.
69:26:32 C Roger.
69:27:09 CC Gemini XI, Houston. The set-up time on your event timer at Carnarvon is 18 minutes. Over.
69:27:15 C 18 minutes.
69:28:27 C Houston, Gemini XI. The MDIU quantities all checked

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out.

69:28:31 CC Houston. Roger. Load is confirmed from down here, too.

69:28:37 C Roger. Pre-retro Check List is completed.

69:28:40 CC Roger.

69:28:43 P ... and all thrusters, both rings, look good.

69:28:48 CC Roger.

69:29:21 CC Your TR is coming up now.

69:29:27 C Thank you. We have it.

69:30:29 CC Gemini XI, Houston. What's the position of that other friend you've got up there?

69:30:33 P I'm afraid that I had a particle flying, but it was much bigger than the rest of them.

69:30:40 CC Roger.

69:30:43 P He was looking for something else to rendezvous on.

69:30:49 CC Tell him to try the Guam.

69:30:52 C ... Roger. You can have a Charlie-5 and the Fox ...?

69:31:01 CC Roger.

69:31:18 CC Can you change your Quantity switch to O₂, please, Sir?

69:31:21 C Roger. Gemini XI has gone to Quantity O₂.

69:32:04 CC Gemini XI, Houston. Over.

69:32:06 C Go ahead.

69:32:07 CC That ramp time is 35 minutes and 15 seconds after Retro. Over.

69:32:13 C Roger. 35:15.

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69:39:41 CC Gemini XI, Houston. Do you still have your Mains ON? Over.

69:39:45 C Negative. We turned them OFF.

69:39:49 CC Could you turn them back ON, please, Sir?

69:39:52 C Okay. Do you want us to leave them ON?

69:39:55 CC That's affirmative.

69:39:57 C Okay.

CANARY ISLANDS

69:44:01 CC Gemini XI, Canary CAP COM.

69:44:04 C Go ahead, Canaries. Gemini XI here.

69:44:06 CC Okay. Gemini XI. I guess this is our last pass until the next mission. We show you GO on the ground and wish you luck.

69:44:13 C Thank you and thanks for all your help, and say "Hi" to everybody.

69:44:17 CC Sure will.

KANO

69:50:40 CC Gemini XI, Houston at Kano, standing by.

69:50:44 C Roger. Gemini XI.

69:50:46 C Roger, Houston. Gemini XI.

69:55:19 CC Gemini XI, Houston. 1 minute, 30 seconds to LOS at Kano.

69:55:24 C Roger, Houston.

TANANARIVE

70:02:04 CC Gemini XI, Houston at Tananarive, standing by.

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70:02:41 CC Gemini XI, Houston at Tananarive, standing by.
70:02:44 C Roger, Houston.
70:04:17 CC Gemini XI, Houston. We'd like to know how you like your peanut cubes. Over.
70:04:23 C Well, except for a couple of swingers, we thought they were pretty good.
70:04:27 CC Roger.
70:04:47 C You're coming through Tananarive today like you were right next door.
70:04:54 CC It's been a really good communication site this time, hasn't it?
70:04:58 C Sure has. And right now it's the best.

CARNARVON

70:18:47 CC Gemini XI, Carnarvon.
70:18:49 C Go ahead, Carnarvon. Gemini XI, standing by.
70:18:51 CC Okay. Have you got 18 minutes set up on your event timer?
70:18:54 C That's affirmative.
70:18:55 CC Okay. I'll give you a hack then.
70:19:03 C Gemini advises the computer is in REENTRY.
70:19:06 CC Roger.
70:23:30 CC Stand by for a hack.
70:23:34 CC 3, 2, 1,
70:23:37 CC MARK.
70:23:41 C Roger. We have it.

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70:23:43 P ...
70:23:45 CC Okay.
70:23:56 C Sure appreciate the help from everybody down there
and our shore sure looks great from 750 miles.
70:24:02 CC Roger, Pete. The ... want to pass along their
congratulations and they want to know when you're
coming back.
70:24:09 C Whenever they'll let me.
70:24:15 CC Have a good trip home.
70:24:17 C Thank you. Thanks to everybody down there.
70:26:20 CC 1 minute to LOS.
70:26:22 C Roger. Thank you.

CANTON

70:38:55 CC Gemini XI, this is Houston at Canton. Over.
70:39:06 CC Gemini XI, Houston at Canton. Over.
70:39:09 C ...
70:39:13 CC Roger. And we're at 2:23 now.
70:39:16 C Roger.
70:39:36 CC 2 minutes.
70:40:36 CC Gemini XI, Houston. 1 minute.
70:40:37 CC 60 seconds.
70:40:38 C Gemini XI. Roger.
70:40:45 C ...
70:41:07 CC 30 seconds.

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70:41:27 CC 10, 9, 8, 7, 6, 5, 4, 3, 2, 1,
70:41:37 CC Retrofire!
70:42:03 P Retrofire 303 aft, 2 right, 118 down.
70:42:10 CC Houston. Roger.
70:42:11 C Address 80 reads 302.8.
70:42:38 C Address 81 reads 1182 ... 118.3.
70:42:48 CC Houston. Roger.
70:43:01 C All right, Houston. Retrojet.
70:43:03 CC Roger. Retrojet.
70:43:08 C Address 80 after Retrojet: 303.1.
70:43:16 CC Houston. Roger.
70:43:18 C ... Automatic Retrofire.
70:43:22 CC Roger.
70:43:57 CC We'll give you a hack at 3 minutes.
70:44:00 C Roger.
70:44:27 CC 10 seconds.
70:44:33 CC 4, 3, 2, 1,
70:44:37 CC MARK. 3 minutes after Retrofire.
70:44:38 C IVI's counting up.

HAWAII

70:45:06 CC Gemini XI, Hawaii, standing by.
70:45:08 P Roger, Hawaii. We're just going through the Post-Retro Check List.

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70:45:12 CC Roger.

70:47:41 C Hello, Houston, Gemini XI. Post-Retro Check List complete.

70:47:44 CC Roger.

70:47:49 CC Okay. Everything looks good here on the ground. Gemini XI. Your cabin pressure is good ... holding and suit pressure's source pressure looks real good. We'll see you back home.

70:47:58 C Real good. Thank you much.

70:49:12 CC 1 minute to LOS, Hawaii.

70:49:17 C Roger. Thank you much for all your help.

70:49:23 CC You're welcome. It was pleasant.

70:49:27 C The people went all out, really.

70:49:32 P I agree.

CALIFORNIA

70:55:00 CC Gemini XI, Houston at California. Over.

70:55:32 CC Gemini XI, Houston. Over.

70:55:35 C Go ahead, Houston.

70:55:37 CC Roger. The initial downrange field deflection is 63 nautical miles up. Over.

70:55:45 C Roger.

70:55:54 C Roger, John. We're standing by for our Retro ...

70:55:59 CC Roger.

GUAYMAS

70:59:54 CC Gemini XI, Houston. This is based on White Sands track and you're over there now.

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70:59:58 C Roger.

71:00:16 CC Roger. Your begin-blackout and end-blackout times are good. Your RET to drogue is 29 plus 31; RET to main is 30 plus 55.

71:00:30 C Roger. That's 29 plus 31 and 30 plus 55.

71:00:34 CC That's affirmative.

TEXAS

71:00:59 CC Gemini XI, Houston. Your RET RB is 26 plus 37; bank left 44, bank right 54. Over.

71:01:13 C Roger. RET RB is 26 plus 37; bank left 44, bank right 54. Our 400K time was 20 plus 14.

71:01:30 CC 200K is - 400K is 20 plus 06. Over.

71:01:35 C Roger. We have 20 plus 14.

71:01:42 CC 20 plus 06 is 400K time.

71:01:46 P Roger, John.

HOUSTON

71:09:33 CC Gemini XI, Houston. How's it going?

71:09:44 CC Gemini XI, Houston. Over.

71:10:01 CC Gemini XI, Houston. Over.

71:10:03 C I'm sorry, Houston. We're right on the money and we're in AUTO.

71:10:07 CC Roger.

71:10:12 CC What altitude do you have now? Over.

71:10:17 C We show about ... 3 g's.

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71:10:21 CC Roger.

71:10:23 C Just asking for a roll now.

71:10:30 C Yes. We read you all right. Let's get the sheet out. We show over a hundred now.

71:10:35 CC Roger.

71:10:36 C S-1, we read you loud and clear. Stand by.

71:11:21 C Address 86 reads 2418.

71:11:28 CC Roger.

71:11:34 C Address 87 reads 29002.

71:11:41 CC Roger.

71:11:43 C 4OK Telelight on the money with the altimeter.

71:11:47 CC Roger.

71:11:48 CC Roger.

71:12:03 C Roger. 1, 2, 3, 4, 5. 5, 4, 3, 2, 1. How are you? Over.

71:12:12 CC Reading you loud and clear. That was a good count there.

71:12:49 C S-1, this is Gemini XI. 1, 2, 3, 4, 5. 5, 4, 3, 2, 1. Over.

GUAM CONTROL

71:13:39 CC Gemini XI, this is Guam Control. Our lookouts have you in sight on my port side. Over.

71:13:45 CC Gemini XI, this is Houston. You're on TV now.

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