NASA, Manned Spacecraft Center, "Apollo 11 Technical Air-to-Ground Voice transcription," July 1969, pp. 317-19, 375-77, Apollo 11 Files, NASA Historical Reference Collection, NASA Headquarters, Washington, D.C.

After eight years of all-out effort, nearly $20 billion expended, and three astronauts' deaths, on 20 July 1969 *Apollo 11* landed on the Moon. The two astronauts who set foot on the surface, Neil A. Armstrong and Edwin E. Aldrin, called it in what later astronauts thought of as an understatement, "magnificent desolation." This document contains the radio transmissions of the landing and Armstrong's first venture out onto the Lunar surface. The "CC" in the transcript is Houston Mission Control, CDR is Neil Armstrong, and LMP is Buzz Aldrin.

04 06 45 52	LMP (EAGLE)	413 is in.
04 06 45 57	CC	We copy you down, Eagle.
04 06 45 59	CDR (TRANQ)	Houston, Tranquility Base here.
04 06 46 04	CDR (TRANQ)	THE EAGLE HAS LANDED.
04 06 46 06	CC	Roger, Tranquility. We copy you on the ground. You got a bunch of guys about to turn blue. We're breathing again. Thanks a lot.
04 06 46 16	CDR (TRANQ)	Thank you.
04 06 46 18	CC	You're looking good here.
04 06 46 23	CDR (TRANQ)	Okay. We're going to be busy for a minute.
04 06 46 25	LMP (TRANQ)	MASTER ARM, ON. Take care of the ... I'll get this ...
04 06 46 38	LMP (TRANQ)	Very smooth touchdown.
04 06 46 52	LMP (TRANQ)	...
04 06 47 03	LMP (TRANQ)	Okay. It looks like we're venting the oxidizer now.
04 06 47 06	CC	Roger, Eagle. And you are STAY for - -
04 06 47 08	LMP (TRANQ)	...
04 06 47 09	CC	- - T1. Over. Eagle, you are STAY for T1.
04 06 47 12	CDR (TRANQ)	Roger. Understand, STAY for T1.
04 06 47 15	CC	Roger. And we see you venting the OX.
04 06 47 20	LMP (TRANQ)	Roger.

04 06 47 36	LMP (TRANQ)	... circuit breaker.
04 06 48 10	LMP (TRANQ)	... copy NOUN 60, NOUN 43. Over.
04 06 48 13	CC	Roger. We have it.
04 06 48 14	CMP (COLUMBIA)	Houston, how do you read Columbia on the high gain?
04 06 48 17	CC	Roger - -
04 06 48 18	LMP (TRANQ)	...
04 06 48 19	CC	- - We read you five-by, Columbia. He has landed, Tranquility Base. Eagle is at Tranquility. Over.
04 06 48 26	CMP (COLUMBIA)	Yes. I heard the whole thing.
04 06 48 27	CC	... good show.
04 06 48 31	CMP (COLUMBIA)	Fantastic.
04 06 48 32	LMP (TRANQ)	Engine STOP-RESET.
04 06 48 58	CMP (COLUMBIA)	Houston, Columbia went UPTELEMETRY COMMAND, RESET, to reacquire on the high gain.
04 06 49 02	CC	Copy. Out.
04 06 49 39	CC	Eagle, Houston. You loaded R2 wrong. We want 10254.
04 06 49 50	LMP (TRANQ)	Roger.
04 06 50 28	LMP (TRANQ)	And do you want V horizontal 5515.2?
04 06 50 32	CC	That's affirmative.
04 06 50 59	LMP (TRANQ)	Like - AGS to PGNS align. Over.
04 06 51 04	CC	Say again?

04 06 51 08	LMP (TRANQ)	Like an AGS to PGNS align. Over.
04 06 51 11	CC	Roger. We're standing by for it.
04 06 51 41	LMP (TRANQ)	... quantity ...
04 06 51 45	CC	Eagle, Houston. You are STAY for T2. Over.
04 06 51 50	CC	Correction, you're - -
04 06 51 52	CDR (TRANQ)	Roger. STAY for T2. We thank you.
04 06 51 54	CC	Roger, sir.
04 06 53 37	CC	Tranquility Base, Houston. We recommend you exit P12. Over.
04 06 55 16	CDR (TRANQ)	Hey, Houston, that may have seemed like a very long final phase. The AUTO targeting was taking us right into a football-field size - football-field sized crater, with a large number of big boulders and rocks for about ... one or two crater diameters around it, and it required a ... in P66 and flying manually over the rock field to find a reasonably good area.
04 06 55 49	CC	Roger. We copy. It was beautiful from here, Tranquility. Over.
04 06 56 02	LMP (TRANQ)	We'll get to the details of what's around here, but it looks like a collection of just about every variety of shape, angularity, granularity, about every variety of rock you could find. The colors - Well, it varies pretty much depending on how you're looking relative to the zero-phase point. There doesn't appear to be too much of a general color at all. However, it looks as though some of the rocks and boulders, of which there are quite a few in the near area, it looks as though they're going to have some interesting colors to them. Over.
04 06 56 47	CC	Roger. Copy. Sounds good to us, Tranquility. We'll let you press on through the simulated countdown, and we'll talk to you later. Over.
04 06 57 00	CDR (TRANQ)	Roger.

04 13 18 14	CDR (TRANQ)	That's okay?
04 13 18 15	LMP (TRANQ)	That's good. You've got plenty of room to your left. It's a little close on the ***.
04 13 18 28	CDR (TRANQ)	How am I doing?
04 13 18 29	LMP (TRANQ)	You're doing fine.
04 13 18 51	LMP (TRANQ)	Okay. Do you want those bags?
04 13 18 53	CDR (TRANQ)	Yes. Got it.
04 13 19 16	CDR (TRANQ)	Okay. Houston, I'm on the porch.
04 13 19 20	CC	Roger, Neil.
04 13 19 36	LMP (TRANQ)	Okay. Stand by, Neil.
04 13 19 37	CC	Columbia, Columbia, this is Houston. One minute and 30 seconds to LOS. All systems GO. Over.
04 13 19 46	CMP (COLUMBIA)	Columbia. Thank you.
04 13 19 47	LMP (TRANQ)	Stay where you are a minute, Neil.
04 13 19 48	CDR (TRANQ)	Okay. Need a little slack?
04 13 20 38	CDR (TRANQ)	You need more slack, Buzz?
04 13 20 40	LMP (TRANQ)	No. Hold it just a minute.
04 13 20 41	CDR (TRANQ)	Okay.
04 13 20 56	LMP (TRANQ)	Okay. Everything's nice and straight in here.

*** Three asterisks denote clipping of word and phrases.

04 13 20 58	CDR (TRANQ)	Okay. Can you pull the door open a little more? 883 on The Comm
04 13 21 00	LMP (TRANQ)	All right.
04 12 21 03	CDR (TRANQ)	Okay.
04 13 21 07	LMP (TRANQ)	Did you get the MESA out?
04 13 21 09	CDR (TRANQ)	I'm going to pull it now.
04 13 21 18	CDR (TRANQ)	Houston, the MESA came down all right.
04 13 21 22	CC	This is Houston. Roger. We copy. And we're standing by for your TV.
04 13 21 39	CDR (TRANQ)	Houston, this is Neil. Radio check.
04 13 21 42	CC	Neil, this is Houston. Loud and clear. Break. Break. Buzz, this is Houston. Radio check, and verify TV circuit breaker in.
04 13 21 54	LMP (TRANQ)	Roger, TV circuit breaker's in, and read you five-square.
04 13 22 00	CC	Roger. We're getting a picture on the TV.
04 13 22 09	LMP (TRANQ)	You got a good picture, huh?
04 13 22 11	CC	There's a great deal of contrast in it, and currently it's upside-down on our monitor, but we can make out a fair amount of detail.
04 13 22 28	LMP (TRANQ)	Okay. Will you verify the position - the opening I ought to have on the camera?
04 13 22 34	CC	Stand by.
04 13 22 48	CC	Okay. Neil, we can see you coming down the ladder now.
04 13 22 59	CDR (TRANQ)	Okay. I just checked getting back up to that first step, Buzz. It's - not even collapsed too far, but it's adequate to get back up.

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04 13 23 10	CC	Roger. We copy.
04 13 23 11	CDR (TRANQ)	It takes a pretty good little jump.
04 13 23 25	CC	Buzz, this is Houston. F/2 - 1/160th second for shadow photography on the sequence camera.
04 13 23 35	LMP (TRANQ)	Okay.
04 13 23 38	CDR (TRANQ)	I'm at the foot of the ladder. The LM footpads are only depressed in the surface about 1 or 2 inches, although the surface appears to be very, very fine grained, as you get close to it. It's almost like a powder. Down there, it's very fine.
04 13 23 13	CDR (TRANQ)	I'm going to step off the LM now.
04 13 24 48	CDR (TRANQ)	THAT'S ONE SMALL STEP FOR MAN, ONE GIANT LEAP FOR MANKIND.
04 13 24 48	CDR (TRANQ)	And the - the surface is fine and powdery. I can - I can pick it up loosely with my toe. It does adhere in fine layers like powdered charcoal to the sole and sides of my boots. I only go in a small fraction of an inch, maybe an eighth of an inch, but I can see the footprints of my boots and the treads in the fine, sandy particles.
04 13 25 30	CC	Neil, this is Houston. We're copying.
04 13 25 45	CDR	There seems to be no difficulty in moving around as we suspected. It's even perhaps easier than the simulations at one-sixth g that we performed in the various simulations on the ground. It's actually no trouble to walk around. Okay. The descent engine did not leave a crater of any size. It has about 1 foot clearance on the ground. We're essentially on a very level place here. I can see some evidence of rays emanating from the descent engine, but a very insignificant amount.
04 13 26 54	CDR	Okay, Buzz, we ready to bring down the camera?
04 13 26 59	LMP	I'm all ready. I think it's been all squared away and in good shape.
04 13 27 03	CDR	Okay.