



Event:

FIRST LUNAR ORBIT AND FIRST MAN ON THE MOON

Date:

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(DECEMBER 21-27 1968)

1-9 AV, 5729
(JULY 16-24 1969)



Apollo 8 was the first manned spaceflight to successfully leave Earth's orbit, enter the moon's orbit and return to Earth. The three astronauts on board became the first people to see Earth as a whole planet, the first to directly see the far side of the moon, and then the first to witness 'Earthrise'—the way the Earth looks as it rises over the horizon of the moon.

Apollo 11 carried the first humans to the surface of the moon.

It was a Friday afternoon when the Apollo mission returned from orbit and it was a big deal. It was a very big deal. A major step in human exploration of space taking place at the heyday of space exploration. The Soviets, competing for space prominence, were firing their own rockets and spacecraft. The President, making grand speeches, promised space exploration using technology as-of-yet undiscovered; and the moon was in our grasp. A mere seven months later the first person stepped foot on the surface of the moon.

And in certain circles there grew a fear. How does Yiddishkeit accept these new innovations? Could it

possibly be that mankind was finally penetrating the Heavens? Would this bring the skies, figurative and literal, crashing down on humanity? *Migdal Bavel*—was that not a similar feat?

At the center of it all was the Rebbe, calm in the middle of a storm. As we well know, the Rebbe has clarity that cuts through the fog of *olam hazeh*, establishing every concept in its proper place. This comes to play in many events that would throw full communities and cultures, both frum and secular, into disarray. The Rebbe would guide the world with clarity, characterizing the events and providing the correct approach.

On both occasions, when Apollo 8 made its first manned flyby and when Apollo 11 landed in the moon, the Rebbe called special farbrengens during which he elucidated the perceived challenges presented by these scientific advances and explored some of the lessons to be derived thereby.¹ This in keeping with the Baal Shem Tov's teaching that everything one sees or hears must bring a lesson in *avodas Hashem*.

Let us begin by clearing up the potential challenges. These are split into two types—textual, based on a *possuk* or *tefilah*, and theological.

Two phrases were presented as problematic: The *possuk* says, "שמים לה' והארץ נתן לבני אדם"—"The heavens are for Hashem and the earth was given to people" it seems that people cannot reach the 'heavens', which at first glance seems to include the moon and planets. Also, we say during *kiddush levana*, "כשם שאני רוקד, כנגדך ואיני יכול לנגוע בך"—"The same way that I jump towards you and cannot reach you, my enemies should not be able to reach me as hard as they try." The implication seems to be clear; we people *cannot* reach the moon!

But these were easily answered, as follows:

The word 'shamayim' can have several meanings. So it is obvious when we say "השמים שמים לה'" it is contrast to the word 'aretz,' which in this case includes **all** of physicality, all *gashmiyus*, including the entire universe, planets, and stars. The heavens that Hashem is revealed in, and to which humans are not party,

לזכות
החיילת בצבאות ה' הינדא שתחי'
לרגל הולדתה ביום
כ"ח תמוז ה'תשע"ו - שנת הקהל

נדפס ע"י הוריה
הרה"ת ר' מנחם מענדל הלוי
וזוגתו מרת שולמית שיחיו
גערבער



is inaccessible no matter how many rockets ships one can invent.

As for the wording in *kiddush levana*, again, taking the words at their simple meaning, the translation is that when a person ("and old Yid") stands on the ground and jumps up, he simply cannot reach the moon no matter how hard he tries or how high he jumps. Similarly we ask Hashem to keep us beyond the reach of our enemies. There is obviously no mention of taking a rocket and flying to said moon and touching it. There is no *makor* in Torah that man is not able to fly to the moon, or even to the stars far beyond.

However, the theological crisis was a little more nuanced, but is still played along the general lines of the frum world's uncomfotability with scientific advances, a notion the Rebbe strongly rejected.

The religious establishment worried that the more the world can be explained according to basic scientific principles, the less need there will be for religion to explain the cause and effect going on around us. The less wondrous and mysterious the world seems, the less proof there will be of the hidden hand of the Creator.

The more confidence humanity has in accomplishing tremendous feats of technological and scientific prowess, feats thought impossible a mere few years before, the less humility they will have. To quote the *possuk*, "כחי ועוצם ידי עשה לי את החיל הזה"—"My strength and the might of my hand that has accumulated this for me"²³ will become widespread, causing us to lose sight of the all powerful G-d above.

The approach forged by the Rebbe recognizes that all technology and all scientific advancements are derived—like all things that exist—from one place and one place alone: the Transcendent Knowledge of

the Knower of All Things, Hashem Himself.

Any and all scientific advancement will only cause awe in the viewer, awe of the amazing power that Hashem has placed in creation, awe of the huge expanse of the universe and of the amazing discoveries yet to come, all from Hashem's boundless wisdom.

Humans are not great, if anything they are small minded beings, caught up in what science deems impossible, in ideas to be falsified in the coming years. Reaching the moon was originally thought impossible according to science—due to overheating during takeoff, due to gravity destroying the vehicle as it leaves orbit, and other concerns—and yet it eventually happened. The fact that they reached the moon proves not only the brilliance of humans, but

also the absurdity of their claims to scientific 'fact.' The self sufficiency of humanity has yet to be proven.

By looking at the planets we can appreciate their greatness and Hashem's greatness. The *navi* says, שאו מרום עיניכם, lift your eyes heavenward, see who created these. Viewing them up-close only heightens our awareness and wonder, bringing love and fear of Hashem. In fact, these sentiments were expressed by the astronauts themselves over the days of their flight, as they read the first ten *pesukim* of Bereishis.



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THE LESSON

There are seven lessons in avodas Hashem to draw from the space journey and moon landing.

1: THE CRUCIALITY OF THE MISSION

The astronaut has enormous responsibility resting on his or her shoulders. The outcome of a mission costing over a billion dollars, and after many long ranging experiments, are dependant on the actions of this one astronaut. He cannot rely on the work of his fellow astronauts, or that the majority of his daily requirements is fulfilled; rather he must follow protocol for every single action down to the type of shoes he wears. Otherwise the mission is worthless.

At a *pegisha*⁴ a few days before the *farbrengen*, someone asked a presenter why an *aveira* is punishable with lashes. Is that not too harsh?

But looking at it from this perspective, the Rebbe explained, lashes are letting the sinner off easy! Similar to the astronaut that jeopardizes the mission with one wrong action, a Yid jeopardizes his mission in this world with this one misstep. The difference is the astronaut is only sabotaging a billion dollar mission, but the Yid is ruining the entire purpose of creation.

Each and every action a Yid takes must be in accordance with the directives of the Torah, the mission plan of the world.

2: NEW TIMES, NEW MEASURES

When traveling to outer space, the scientists made sure to sanitize the ship and the suits of the astronauts from any microbes. Because the rocket would be taking the ship to unknown atmospheres and conditions, there was

a worry that the microbes would react badly and create new diseases, and the immune system of the astronauts will not be strong enough to combat it.

In *avodas Hashem*, one can ask: Why must I grow each day in the service of Hashem? Why isn't what I did yesterday good enough?

Looking at the world and seeing how it changes day to day, and keeping in mind that the Gemara says, "There is not one day in which the curse is not greater than before," we understand that the only way to combat this is by growing in our *avoda*. The scientists understood that changing environment changes the circumstances, and we must react as well.

3: SHEDDING THE UNNECESSARY

One of the challenges faced by the designers of the rockets was getting the vehicle off the ground. To push off the launch-pad and to break out of orbit takes an enormous amount of force provided by the fuel engines. However, this leads to a vicious cycle. The more fuel that is needed, the larger the tank to hold it is needed. And the larger the tank, the more fuel is required to carry it, and so on.

The innovative solution was to create multi-stage rockets and boosters. Once the fuel is exhausted, the space and structure that contained it and the motors themselves are useless, and they only add weight to the vehicle, which slows it down. By dropping the stages that are no longer useful to the mission, the rocket becomes that much lighter. The thrust

of future stages is able to provide more acceleration than if the earlier stages were still attached. When a stage drops off, the rest of the rocket is still traveling near the speed that the whole assembly reached at burn-out time. This means that it needs less total fuel to reach a given velocity and altitude.

This teaches a wonderful lesson. If Hashem wanted us to conquer *gashmiyus*, the physical, why did he give us a *yetzer hara*? If the purpose was to make sure we wouldn't have 'bread of shame'—that we should acquire everything with work—why give the *yetzer hara* so much power?

But the ultimate purpose of the *yetzer hara* is to allow the *yetzer tov* to ascend, and in order to climb higher we need a bigger *yetzer hara*—the bigger it is, the higher one flies. However, once the purpose of the *yetzer hara* has been fulfilled, it is time to shed that part.

Three stages exist when fighting the *yetzer*. 1. *Iskafya* (breaking its nature and forcibly doing good), 2. *Is'hapcha* (transforming its nature to good), 3. The inbetween stage—killing it with fasting. Fighting it constantly, holding back, hoping that when Hashem is busy he will be able to indulge, is *iskafya*. Once he kills that aspect of the *yetzer*, it is discarded, and he is now lighter and able to focus on the other parts of his *avodah*.

4: ALL BELIEVE

From the fact that the astronauts prayed on the moon, and asked that people pray for them using *Tehillim*, shows that they believed in a Creator. They believed that the Creator watches

the world, and that davening can have an effect. These three points were obvious to the astronauts, even though there are some in the Jewish nation that have trouble admitting to them.

5: TO EACH THEIR OWN

Every person has a purpose in life and a place to carry out that purpose. An engineer in Mission Control, whose job is to facilitate certain aspects of the mission, can't suddenly decide to become an astronaut; and vice-versa would also be counterproductive. Each person must keep to his mission.

6: QUANTITY VS. QUALITY

Quality overcomes quantity. Small people, with a brain that physically only take up a small percentage of their bodies, are able to fashion a rocket that will carry them to the moon and back. The *tzura* overcomes the *chomer*.

7: THE WEARY JOURNEY

The trip to the moon is about 238,855 miles, and millions of dollars were spent on funding it. Your *neshama* traveled a much greater distance—מאיגרא רמה לבירא עמיקתא—all the way from the *otzar haneshamos*, to fulfill your mission and do what you must do! **1**

1. In fact during the landing the Rebbe spoke on three Shabbosim—Devarim, Va'eschanan and Re'eh.
2. Tehillim 115:16
3. Devorim 8:17
4. The "Encounter with Chabad" Shabbaton, where students would come spend time at 770. See *The First of Thousands*, Derher Elul 5776, for more about this.

THE LUBAVITCHER REBBE: IT IS POSSIBLE TO REACH THE MOON

Israeli journalist Shlomo Nakdimon records a conversation he had with the Rebbe (a few years earlier in 5722) about space exploration:

"Will man ever be able to reach the moon?" asked Nakdimon.

"It is surely possible" replied the Rebbe.

"What will they find?" asked Nakdimon.

"What they will find, is something we will find out when they reach the moon..."

"How does Torah view these types of experiments?" Nakdimon pressed on.

"The discovery of the atom, its particles and its laws are more crucial in the Jewish view than the 'conquest' of space," said the Rebbe.

"The conquest of space is the advancement of science and technology, while the discovery of atoms corrodes the very foundations of science. Until now, science was perceived as a stable entity while Torah was no more than belief. Now, we see that all the assumptions of science and technology are not unequivocal truths. And this happened with the discovery of the atom.

"Thus, all of science's questions on Torah are removed, since science truly needs to be reevaluated.

"We shall see that with every advance in understanding the relation of atoms to each other, there will be greater need to reevaluate science as we know it today," the Rebbe predicted.

"And Torah doesn't withhold or prohibit exploring space?" Nakdimon persisted.

"Torah has no opposition to continued research," replied the Rebbe.



"THE LUBAVITCHER REBBE: IT IS POSSIBLE TO REACH THE MOON." NEWSPAPER HEADLINE BY SHLOMO NAKDIMON.



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