Chapter – II

Rocket Ship Galileo and Space Cadet

Robert Heinlein’s *Rocket Ship Galileo* was originally published as the first of a dozen Scribner’s science fiction juvenile. Like *Have Space Suit-Will Travel*, it is the story of a first trip to the Moon. Other his novel such as *The Moon is a Harsh Mistress* and *The Rolling Stones*, as well as shorter works, involving people living full-time on the Moon. Heinlein’s protagonists and others characters live quite matter-of-factly in their world no matter which world it is, taking their place and time so clearly for granted that the reader does too. Whenever they set out to travel, however wonderful and adventurous the journey.

*Rocket Ship Galileo* is the first book of length expression of Heinlein’s love affair with the Moon. If the Moon were the tantalizing “Goddess Diana” hunting naked through Grecian forests, rather than the airless satellite of Earth keeping her constant stony face turn to her gravity master. Robert Heinlein hardly could have given his better attention. For Luna, “inconstant moon” though he had been called, is fickle only in appearance, as seen in the dressing of sunlight; and these Lunar Phases $A = \pi r^2$ not due to moody weather of her own but simply to her position relative to the Earth and Sun.

The Moon is static, it simply is distant. What makes this hard to bear is that it is many time in clear sight, a clear disk, unlike the much more distant Solar Planets and Moons. Also, unlike the Sun’s disk, Luna that can be seen is a small world, a more or less reasonable place to think about visiting - at least in science fiction.
It is not many time that one can open a novel along with a bang, quite legitimately are naturally! Just out of the high school, three boys are actively experimenters in back-yard rocketry; substantial back-yard rocketry, along with a test stand and instrumentation. These three teenagers’ engineers’ experiments and projects are on a minimum budget, but undertaken seriously-this is the Galileo Club. When the teenagers hook up with the uncle of one of them, an atomic physicist, the man sees the latent help they could to his own blue-sky project, an atomic-engineer drive to push forward a true space ship- really, it is just a mature extension of the boy’s own aims. Although youthful, they are on the right way.¹

The matter of fact he was infatuate. It’s common enough in the US for teenager to build and take apart almost anything mechanical, from alarm clocks to hikes-up jalopies. It’s not so common for them to understand the short of recorded and controlled experimentation on which science is based. Their instruments were crude, their facilities limited, but the approach was right, and the scientist recognized it. Three boys and the physicist of the ‘Galileo Club’ team up, shift operations to the New Mexico desert, and start converting a commercial freight rocket to make the first trip to the Moon. The plot, along with its human challenges as well as the engineering and science ones rolls along.

By now we begin to see why the title *Rocket Ship Galileo* is not casually chose. Galileo Galilee drew some of the earliest telescopic view of the Moon. But Galileo’s life story is itself very important in the history of scientific inquiry. The Astronomical strong desire of Galileo really needs to be matched by Galileo’s scientific courage and integrity. There are always foes to science and progress. Robert Heinlein considers all these Galilean aspects interrelated, and makes the audience or reader feel this in the natural course of events.
The Moon’s distance gives it one analogue to the unapproachable Goddess Diana. A Rocket is a controlled explosive, and is inherently not safe. There is a quarter-million miles of emptiness to cross, via rocket. And there is also its own sterile emptiness. The Moon has and unwelcoming nature, once we catch up with it out in the dark void; it picturesque hospitality is primarily that of an airless rock. Surviving upon the Moon seems as risky as trying to woo Diana.²

Robert Heinlein’s empathy with his adventurous, experimenting, and can-do-characters puts the right kind of people in the inhospitable satellite and void. How do they cope? They are equipped than anything else with intellectual mind. They think their own way through problems, even crises. When they done mistakes, they talk it out, figure it out, and fix the situation. There is quite a pace and quite a lot to figure out. The plot grips the reader from the very beginning.

Ross Jenkins, Art Muller, and Morrie Abrams would be exempted for involving then in peculiar company of Lee Correy and Robert Willey as they were all set of test their recent model rocket the Starstruck V. In order to carrying out its trusts measurements they created dynamometer events are being developed so as to forward them into neighborhood of Verein Fur Raumschiffart.

The Three fellows started the study analysis of their lost test model. However it is too late to gather the material information leading them to decide, to give things better looking morning session rather than that of broad day. When they get to gate they found something in their way, to their next, fill with alarm, or rather somebody a very unconscious somebody else.

The trio are the representatives of kind of genre which at the verge of vanishing tinkerers. Dr. Cargraves observed that his culprits are scientifically minded and possess the experimental ideas and ideas of being organized their
simple basement lab is cleaner than that of basement. Fortunately his injury is of super facial nature. After wards injured hero got associated with the friends and family. 

After cautiously perusing the skills and resourcefulness of his targets and having trough inquiry of another named Dr. Cargraves draws inference and reveals his true inspiration why don’t you go to the moon with me. From the several internal sources we can presume that story has been set in the in the late fifties. Art was “just a kid” last time he saw his uncle “just after the war” At the age of Seventeen or Eighteen he graduated from high school putting this meeting between ten and fifteen years ago.

The world in which they spend their life was simple one. Nuclear weapons are under control of United Nations the Baruch Commission Proposal whether they are controlled by “a deliberately expatriated band of Janizaries” as in “Solution Unsatisfactory” is not specified. Commerce is campaigning in rather unprecedented ways. Low-Orbit rockets carry cargo across the oceans and passengers around the world. Presumably those world quite authorities ensure that none of those rockets is going on one-side trips with nuclear weapons as cargo.

The possibility of inviting similar kind of consequences due to this peace cannot be ruled out. Subsequently reference is also made to “reborn Berlin” assuming that it is never been blocked or fragmented. Our boys have no access to Foreign affairs. Now days at Kaiser Wilhelm institute, Arts Father had observed some bad experiences with. “Aryan Science” resulting in becoming guest of other type of amenity of Reich’s. Due to the solemnizing marriage with American woman, thrown him out of the concentration campaign.
Adventure excitement, achievement, and self-fulfillment, which was offered swallowed by boys without a second thought. Those factors were in the mind of their parents, to which Dr. Cargraves has made delight percussion perpetually. From her brother, mother of Art did not take way little much by following; aware of those five years since bar mitzvah means something’s. However Father of Ross seems to be more skeptical. Incurring huge value and in need of achieving substantial technical skills and with plausibility of done it by Government or in case of failure by Govt. finish it by corporate enterprise. Mr. Jenkins is acting as spokesman for author who says:

Young Atomic Engineers contains two conventional deviations from what I believe to be reasonably possible; I have condensed the preparation time for the trip and I have assumed that four people can do work which should require more nearly forty. While, it is really true that as Cargraves says of the Soviets “They have got the technical ability and they seem to be willing to spend money on science.” Science some other considerations were also there. The Soviet space program was outcome of their intercontinental ballistic missile program; in fact the principle Russian man-rated lift vehicle is still an only slightly updated format of Sergei P. Korolev’s Semyorka ballistic missile. The Soviet manned space program was prominently impressed by the prestige considerations.

Mr. Jenkins also at the end got influenced by prestige consideration. Having regard to proposal of hike skilled techniques carrying forty work and leading into Cargraves paired contentions in responding that boys were already armed with skills and combination of pledge and enthusiasms created unreachable bond, the impasses came to broken by reminder from Mrs. Jenkins. She pairs out
that they themselves descended from you dynamics who were gone against will of their parents.

Mr. Jenkins in his defense says that he hasn’t been and confining father, like Roger Stone and Clifford C. Russell be permitted his children to revolve around explosives. In outside limits of city and not in frame building, however as far as these kind of explosives is concerned Dr. Cargraves was of the view that they have to go outside the city limits. i.e. to New Mexico in fact. On an abandoned United States munitions testing site off of Route sixty-six, now a UN testing site, where in 1951 the UN tested its doomsday Bomb. At present it was proposed to fusion weapon but Heinlein might be thinking different view in particular. “If the bomb was detonated five miles up, but left a creator that stretched for miles towards the horizon it must have been an odd one indeed.”

As forty work requires work site as a tools, Heinlein subsequently written later, after house building come into picture in *The Door into Summer*(1957) he might not have be believing that machine shop building is erected through power foundation of Art and Ross, in one day and no sooner did formed building.

And why are they doing alone it, anyhow? Dr. Cargraves was possessing Aircrafts Pilot’s license, so does Morrie. As the pilot of licensed aircraft can get rocket pilot’s license with a short training session that’s why they are doing considering all this aspects, it would not be surprising that new rocket pilot decided to save money by flying their rocket out themselves “At the time of writing, and given the circumstances the time of the book’s action, the telegram notifying the advance echelon of the success of the main unit was the customary means of so doing.”
Thorby was younger than Art Marrie and Ross at the time of his enlistment. He was more focused than Juan Rico, not as emotional as Zeb, Jake, Detty and Hilda. Therefore, they accepted assignments of Dr. Cargraves, which was commensurate to their knowledge and skills. Morrie was trained as a pilot, stood second in command, whereas Art, the tinkerer, was the medical officer.

However, ships are not only one long shot for wholly requirement equipment. They were also in need of space suits, in which to take one little step to man and said units arrived soon. Sometime narration of suits seems conversation of too contemporary readers, around a Gulf of fifty years, but in other techniques, it seems affirmatively, eccentric one, Ex. in view of the need of protecting against heat loss by conduction are in order the concerns about insulation of the suit have proven unfounded. Keeping cool not warm was exact appropriate hurdle of Astronaut’s. The well conversant modern day reader would presume that the de-camp connects that verify mobility under the pressure which is invented by engineer at Naval Aviation Experimental Station in Philadelphia. Russell might have found few insufficient characteristics for them to Have Space suit will Travel in the year 1958. On the whole presentation shows plausibility and exploration required to satisfy reader.  

The thorium which is emerged in power plant is the hazardous substance to human health. The crew has is to be prepared for store it, prior to transferring it and prepare the ship to utilize it. Alfa and Beta particles not require any comprehensive shielding to be awarded the composite design for radiation shield is though some of the shielding one over signed, so as to maintain knowledge level within standards. Thorium is element go, which became radon by isotope disintegrations, which is hardly concern in space, but on the other hand, it faces of problem of storage. By virtue of contrast thorium is ductile, lacking, crystalline
changes of Platonism, which proved as effective safeguard to nuclear terrorism in this regard making task of fraudulent fuel elements simply possible by four doing the work of forty.

According to Cargraves institute is cautious toward, handing safety measure with stirm hand requiring exposure films. The man who died whole testing critical mass at Loss Almost was an expresses need of safety measures. A nest consideration, the high cost, is nothing so much addressed as finessed. Dr. Cargraves proudly said:

.... Under UN trusteeship for atomic, a senior member of the Global Association of Atomic Scientists that’s me!” he stuck in, grinning, “can get fissionable material for experimental purposes, if the directors of the Association approve. I can swing that....

Notice again the internationalization and lack of the concern about misuse. There is no hesitation of a senior member of the GAAS deciding that Dr. Fu Manchu was pretty good post faculty advisor. Not go give reference of any higher orders. Having regard to the long range planning, the young dynamic engineer shopping involving purchase of plants for oxygen conversion. This was the standard thesis of Science Fiction extrapolation but too comprehensive for oxygenation return. It cannot be speculated that whether it would have worked on the doomed Biosphere, hoped to set up such system. When level dropped to lower limits of breathability, managers of experiment utilized pipe of oxygen of in enormous strength but they realized that concrete structure might have observe it.

Revert back at camp CAB inspector arrived and said that Cargraves is worried about than D.D. Harriman. Next morning they started last preparations:
Cargraves looked up just in time to see a bright, bright flash, then to be hit in the face by a thunderous pressure which threw him back against the side of the ship. With programme there had been ideas at beginning while conducting the postmortem a body of Starstruck V. the boys, assisted by their victim collected all parts. However they neither found part that had not knocked out Cargraves s nor find any proof that there had been such a part.

Afterwards when Ross and Art arrive to event building, they noticed their key to lock on the gate to the reservation doesn’t work. Somebody has worked and rangers installed new lock. The intruder stepped on mine was unable to satisfy query put forth to him and he get shocked. Now it reveals that CAB “inspector” was endeavoring to preclude the flying to the moon, by more than just means.

Cargraves leaves North American Atomics, his former employees, because they were not having keen interest in utilizing ensuing power source for space flight. Restoring legal constraints that Douglas and Martin had to consider in Let There be Light. Somebody if be surprised if the company thinks that it still owns rights. Notwithstanding Dr. Cargraves statement to be contrary and wants to adopt covert implementation thereof. Discussion of Heinlein’s early years consisting sentimentally conflict with corporate power of incompetence is one of the some worthwhile. The matter of great concern is related to their health.

Ross had been misfortunate towards explosion, he has been blinded temporarily they expects. In a despairing return journey Cargraves feels unconscious. At this nick time shippers might think fit to deliver thorium Cargraves ordered them to go back in spark of realization. Mr. Jenkins was right and he was over his head and after words collapses down.
After his recovery, he saw that his orders have been followed. Not only one just gave, but also when he made Morrie his number too and gave art the power to put somebody in sick list. It incorporated to his order to return thorium being ruled out of order, subsequently is collapse art had put him on sick list, in a state of course which cannot issue the legitimate order. Depths of despair was dogged by Dr. Cargraves in very night. Excess positive mental states created in morning session Dr. Cargraves possessiveness enlarged due to me display of dedication by boys and he decided to go ahead. His Discovery of the plastic explosive charges on ships radiation shielding does not affected these heightened sentiments.

As Ross’s vision rapidly reverted back work go on in this more advanced spirit. In Rocket motor Cargraves utilized mundane as hydrogen being the Propellant through component. His motor uses the raised particular impulse generated from flinging more massive atoms out of exhaust “Delivery problems in the pre-thrust might make this propellant the fuel is the thorium more difficult to use than it is presented as being.”

The Crucial items are required to be taken into consideration as they are forwarding to final stage of testing: what to call ship? They formulate on a name showing their organization and connected to their destination, after considering the several proposed names and with meager contentiousness than the stone family of The Rolling Stones in the year 1952. Where upon the last of the building crises aroused required scale test equipment was not easily available. Cargraves s decides to which other scientist at Huntsville would call an “all-up” test after coming down to wire at that juncture simply fly the rocket testing motor and other systems at the time.
In as a result of the thinking prevailing among us them: they must be hyper as they put onward getting into the ship. At T-10 minutes observed an irregular sort there: Cargraves gets served order of court whereby it was held that he shall be prohibited from lifting. Something about endangering lives of minors (Recall then 21 and not 18 was transition point of those days). It realizes the rather suspicious leading the circumstances and Cargraves has to have federal sovereignty trample states to ensure his lift off. Luckily the federal authorities are extended full co-operation and state authorities gave consent something is up though. With this last minute obstacle impediment in the way, with the temperament that D.D. Harriman or Dr. Corley of *Destination Moon* might have envied having faced same kind of hackles, the Rocket Ship Galileo off.

Young atomic engineers strained all their nerves, are under the equivalent of several gravitations on accounts of shifting thrust of their rocket in its acceleration to escape velocity. As result of which further few moments depict equivalence of gravitational mass and interior mass. As they never entered in orbit this is direct ascent mode waiting “Waiting twelve hours to save a difference of Sixteen Thousand miles per hours was more than his nerves could stand, reason the frazzled Cargraves, and given the legal antics perhaps not unjustified.”

As a result of what has been finished the scientific facts proved to be true however technological ones were even then of shown similar effects. Once first accelerations to rescue the velocity came to be over the pilots had over to automatic control system and electromechanical guidance system working of cam. It can be defined as an analog guidance data kernel however it is lump of machined metal.
After completion of the initial thrust phase the young dynamic engineer commenced to discuss the concepts from *The Exploration of Space* by some Treasury clerk over in Britain named Clarke, about various frames of reference, the acceleration dynamics as onwards. Not to refer in effect the unpopular editorial from *New York Times* which reflects the knowledge how they lacked knowledge handed out in high schools about Newton’s Laws. In a change the mission proceeds softly, alleged no exploding oxygen tanks, lightning strikes, or whatever. Really Dr. Cargraves tells the Art, ‘Then you may get some truly unique picks the Earth from space’. Presumably they will not also read from Genesis

After epistemological interlude the tutorial in respect of the experimentation in nuclear physics as well as subsequently lecture on practicum in inner ear medicine was organized. The second thrust phase being tantamount to finishing the job, Galileo is about to go into free fall. Heinlein’s speculations on future aspects of extensive of the next step beyond air sickness have never yet been given their just due. Likewise the Bill Lermer did in *Farmer in the Sky* (1950). The boys intended as they could get drop sickness shots.

Other matters have been cursorily perused since then explained in forging some pages consisting the problem of solar heating and view of earth from space. But the radios at any point of time quite seem to the task, for the purpose of keeping attachment, Matt Dodson lacked deep space network with Des Moines, so do the young atomic engineers remain out of contact with home. They achieved lunar orbit due to continue mission. In the Contrary to Cargraves derogation of analytic methodology, there is other side to moon. In an echo of *Blow ups Happen* Morrie experienced, creating wonders if the Selenites blew up their planet with nuclear weapons. This topic is concern Cargraves himself for last some years.
The landing comprising off unbelievable coincidence; their original chosen landing site turns out to be too rough and at the eleventh hour intervention by human pilotage places, the Galileo at procellarun base well, Heinlein wasn’t that much of prophet. Like explorers in Destination moon they landed beyond line of sight of Earth. By establishing way of communication that chancy apparently possibility of observing the something new overrode any perceived need for communication. By way of contract in James A. Michener’s Space in 1982, his fictional Apollo eighteen mission to the far side deployed communication satellite so mission control and TV Spectators could hear the two lunar astronauts, LM Pilot Paul & mission commander and Science Fiction reader “can be even Rocket Ship Galileo, Randy Claggett, dying of their massive radiation overdose from the solar flare and event not in the mission plan”.

The second person on the moon, Art, says swell! His first work on surface well, Cargraves “Okay, kid” this is not material statement for history actually in edger us state of mind art forgotten his camera. In case of early exit they did not carry any sample.

Morrie and Ross are too excited to join their colleague and subsequently within few minutes. Cargraves grants permission. Morrie Further that, this outstanding desolation is an intentional one and not naturally creation and exploration of area thinks he had found a proof.

At least he thinks which he has thought onward. When explorers proceeded towards earthlight, Morrie bifurcated from others, only to reappear talking maniacally. These situations require and abort and with huge concern for brain damage they rush him back to ship for resuscitation. The response to Marrie’s brush with brain damage is harbingers of the detailed moons indicated that Peewee
Reisfeld was getting hazardously close to edge. The comprehensive debate over concerned technology was fore shadowed though Oscar the suit might be feeling superior complex.

Being enabling to plan and long term stay, they seem better off for consumables truly seleneology seems to be an incidental consideration: boys would have been for more likely to see how they could through Jim Irwin’s Rock in the lower gravity leading them to home for analysis. The book has proved considerably attached to actually encounter for lunar conditions. Lunar surface seems to be more like that which would be observed subsequently with dust and rock and not like dried-out cracked lakebed of Destination Moon. The volcanic versus meteoric theories still matter of contention, moreover in absence of data so many enormous exotic theories have been proposed pertaining to lunar dust thick. Sufficient to engulf lander these were not dispelled unless Surveyor Lunar Probe landing mission of 1966-70. The rough terrain narrated was not encountered and Apollo missions were planned with the amounting to lander in flatter terrain. Limited fuel was one of important considerations amongst those.

However this is an early that has come to if not stay, some stipulations for staying. Shelter is primary stage, Cargraves thinks in building Luna City as per his imagination would be very soon probably in next year. By way planning as such they erected shelter, covered, and got sealed. Lastly the hoisted the flat of United Nations and limited states, the conjunction seems to satisfy somebody. This claim would be interplanetary transparent disguise for British inter planetary society would not take frontiers the space and expresses sentiments of Cargraves:

He found that tears trickling down his cheeks; he tried futilely to wipe them away through his helmet. He caught Ross’s eye and was embarrassed. “Well sports,” he said
with forced heartiness, “let’s get to work Funny,” he added, looking at Ross, “what effect a few little symbols can have on a man”

Ross looked from Cargraves to the bits of gay bunting. “I don’t know” “he said slowly.” A man isn’t a collection of chemical reaction; he is a collection of ideas.”

Cargraves started. His “boys” were growing up! A next phase into domain of the philosophical commentary than for most novels allegedly for adults, let alone for children. At this juncture we have an example of dichotomy between Heinlein’s belief and practices. The same Heinlein who roaming around metaphysics and epistemology is the one who in ‘Exhaustive Universe’ announced philosophy to be of no more the entertainment value. This is simultaneous attitude to the psychological insights, leading James Blish to declare Heinlein. Freudian, the theoretician to which he was confidently asserted, would soon declare as abandoned finished.

The victories alliance which put paid dreams of Nazi world domination conspirator sends Chinese troops via black helicopters to seize Mr. Howells farm. In order to further evil New World order planning to set up the Socialist State of World. Afterwards the things seem to be quite different.

At present they are having platform and can commence to explore on foot not point-to-point. Due to frequent take offs and landing possibility of crash enhances. The place of their quasi- permanent habitation has also been selected with considerations for communication and nearby place with line of-sight to earth and Art proceeds to forward setting up radio equipment enabling them to pickup signals from home. However radio setting up leads to discovery of its own: somebody else is on the metaphorical air nearby. Broadcast eradicates it but brought another. “This is Lunar Expedition number one. The voice said” Will you
be pleased to wait one minute while I summon our leader?” The shock of beating
possibly demoralized and confuses them and due to not establishing
communication of the leader of Lunar Expedition Number One when lastly called
is of no assistance.15

The leader captain James Brown, told that, hint at validating the authors
warning “Keep your eyes on the British the British interplanetary Society is
determined to get there first.” The coincidence of both the expeditions landing
within limits of some area emerging totally unaware to each other. Sound more
like a pulp trick than serious attempt of extrapolation. The young dynamic atomic
engineers went out to be good sports and congratulate their out doers, who arrived
by Rocket. But greeting which they get was not certainly suitable for their well-
come:

But the rocket did not come in for a landing. It nosed down,
forward jets driving hard against the fall, directly toward
the Galileo. At an altitude of not more than five hundred
feet the pilot kicked her around, belly first, and drove away
on his tail jet.

Where the Galileo lay, there was flash, an utterly silent
explosion, and a cloud of dust which cleared rapidly away
in the vacuum. The sound reached them through their feet,
after a long time it seemed to them.

The Galileo lay on her side, great gaping hole in her plants.
The wound stretched from shattered view port to midships.
Cargraves stood perfectly still, starring at the unbelievable.
Ross found his voice first. “They gave us no chance,” he
said, shaking his fists at the sky. “No chance at all! 16
Lunar dispute is of farcical nature some times, as with Soviet and American race
that ended up with both of them bartering for visas to enter the Duchy of grand.
Fenwick’s newly connected area in Leonard Wimberley’s The Mouse on the Moon
in 1962 and sometimes it has been bloody as in the complex structure of conflict in Martin Caidin’s *No Mans World in the Year* in 1967. Those were not wonderful as this been.

After all sabotage going on during Construction phase, Cargraves adopted few petty safeguards of his own, purchasing two M-1 Garand semiautomatic rifles. Taking them as earliest seemed less comprehensible “The concern for loading notified in Cargraves nothing that “they had ripped the binding from their few books to save space and Weight” seems quite century with substantial excess margin of thrust he had short while reported.

They sport shorter and unhappy life before their oxygen runs out unless then foes turn out to be co-operative. It is good if not deliberately. Cargraves is of view that numbers will go back to place of strike for onsite target evaluation and moved to right. The other ship land and disembarks reconnaissance party, which commences its post-strike change accreditation. The proceed using a long loping gallop that “The move using a long loping gallop that the Galileo’s crew had learned was the proper way to walk on the moon”. Another prediction completed.

When survey was carried by the team in respect of hostile assessment, Cargraves moves. The pilot of other ship apparently hadn’t been checking his associates or he would have seen the man running for his ship. Wonderful turns out to be as potent a tool for young atomic engineers as against. Them as Cargraves overcomes the pilot without much difficulty. During, Morrie and art laid counter ambush of their own with tremendous out-come for their men damage assessment team, instead of trying to return back in its mystery. That commenced the sniping at the ship. Therefore now they possessing substitute ship or do they?

This is no space ship,” Art said bitterly. “This thing is a jeep. Look at that.” He indicated two gauges. One was
marked Sauerstoff, other Alcohol. “Oxygen and alkohol this things is just kiddy wagon.\textsuperscript{17}

It is necessary for us to recollect that at the time there was wide and rooted-based concern regarding remnant Nazis Eisenhower’s armies in Europe which created diversion of strategic type into Austria and Southern Bavaria because of propaganda raised by German \textit{Propaganda ministerial} narrating the “Alpenfestung” where National Socialist elite would conceal in forest waiting for returning as if sun crossed Friedrich Barbarossa’s Somewhat method of legend, the moon seems to be perfect place for werewolf. (The tremendous endeavor) put forth by secret Nazis.

Really Morrie was good Mazel as it was local night at the base and crew assess away in their bed. The tunnels of the base were erected by masonry, made airtight with sealant. This seems to be little but reasons turn out to be more exotic. Under the pressure drop one of the walls is buckled, terminating at next tunnel which was unsealed Cargraves after study says “Ross, you haven’t discovered a Nazi storehouse. You have discovered the homes of the people of the moon.”\textsuperscript{18}

Ross and Cargraves continue their search tearing away secret of moon corridors.

There was one man who had been suitting up when bomb went off. As it was useful for some extent Nazi brought it while Ross returned to tell others. Their new prisoner turns out to be somewhat higher up in ranks “I am Helmut von Hartwick, Lieutenant Colonel, elite Guard.” He knows himself. The elite guard is better known by its real name Hartwick should be saying “I am Helmut von Hartwick, SS-Obersturmbannfuhrer and Lieutenant – Colonel of the Waffen-SS” small wonder Morrie was disappointed Hartwicks, honor is loyalty and he act in the like manner. Hundreds of German soldiers in last day of war were hung or shot dead, straight out of SS field court martial squads.
According to him any suitable defense remedy is necessary as it still going onwards. Actually legal and physical conspiracy was behind attack on Cargraves young atomic engineers. The nuclear weapons which they possess indicate that there was covert agent in Global Association of Atomic Scientists or liely a corruptible member, intending for am a A-Bomb Plant and moon ship. Though Heinlein almost certainly not has man in mind, the officer Hans Kammler made an endeavor to take control of Peenemunde project, which possess away in May 1945. Actually Kammler’s organization has all trappings of such secret outfit. One good turn multiplies another and Morrie get honor of piloting the rocket for reprisal bombing mission. Galileo had landed mere twenty one K.ms. from Lunar Reich, but resulting plot work faster. The bombing goes off without an impediment. Cargraves and Ross investigate the goal. Their spaceship was intact and in need of transpiration of the some good thing to home. Without any wonderfulness ship moved out to be job of conversion evidently the Nazis have some mercantile approaches. The determined the half-hour dead line for investigating the base as the watch was in ready to strike back or more plausibly in case of meteor strike.

By way of this they did not get the working ship. In order to achieving some interesting facts, they look the extensive search everywhere. Selenite city’s moon corridors consisting of vast if ineffable surprising, enthused over if not described in comprehensive by his explorers Art and Morrie. Searching at base, shows that Hartwick is second in command, but hints as to why he is so uncovered there is less than a week’s worth of the supplies of their spaceship is coming within a period of week. This proposes some quick and effective action

According to Hartwick the war is not over. Cargraves decides to give him some medicine namely field tribunal death sentences. In that process of throwing
him out of air lock. After long spiel about legal standard us and for change a borrowing of clichés usually the property of villains. Namely demonstrating his schemes, he orders Ross to throw him out the airlock. After words he changes his view and act accordingly in real Heinleinian leadership method to find that Hartwick is not as enamored of cold equations as he might be when he is the victim. The ship has confidential control interlock. This shows a certain suspicious about operation that seems at odds with organization.19

They were set up planning capture, from the place of built City Detroit renamed, For the purpose of quick return to earth. Nazis had only adapted and substring design takes off with its explorers and prisoner due to shortage of fuel obviously takes four orbits to decelerate to earth landing velocity. On last speculation of the future aspects of media mania: “On the next lap two chains bed competitively for an exclusive broadcast from space. On the third there was dickering for television rights at the field”. In a stage of climatic finale the heroic young atomic engineers land near Washington. Cargraves gets up to open the lock. As he swung it opens, a solid wall of sound beat him in the face, an endless mass of eager eyes looked up at him. Flash guns flickered like heat lightning. He turned back to Ross. “Oh, my gosh”! “This is awful” Say don’t you guys want to take the bows?20

In this regard, it is very difficult to swallow that book where scientist and three boys build spaceship and travelled to moon to fight Nazis. The dispute was admittedly provided by Nazis this ‘trial run’ has some other aspects as per narrated above.

The interaction between the teenagers and the adult scientist also is balanced. The man takes them seriously, admits his mistakes, and shares importance responsibilities with the young scientists. Robert Heinlein respects his
characters and they respect one another. This is a likeable team on an adventure told so matter-of-factly that we seem to be standing among them in the New Mexico desert as they ready their ship- and later among them on the Moon. Where that distant but quite natural landscape is made to feel fully natural to the reader, but there are surprises all the way, even on the moon….21

Robert Heinlein compressed the moon-rocket ship enterprise in Rocket Ship Galileo as he admitted elsewhere: what should have been the work of forty men had done by four. As developing history showed, it possibly took more than forty thousand in all sorts of specialties to get out first Apollo crew on the Moon in the year 1969. Might we have done it with forty men, or even four, if Heinlein think folks had controlled the right combination of resources, and without government management? On this particular risk, but there will be other risks not yet foreseen. NASA Galileo space-craft was sent voyaging with some of this Galilean spirit, albeit via remote control.22

He wants there always to be young people of the right mind are character to seize such opportunities. His novels went a long way toward educating such a class of people, and still are doing so.

Spaces Cadet was the first Heinlein juvenile to really break new ground in the genre of “boys’ books.” In the 1940’s Tom swift, The Hardy Boys and even Nancy Drew were mass produced works that had lots of action and mystery, but unbearably thin characters. At the most, each character was allowed one defining characteristic: Chet is stout; Chet likes his groceries. The people creating these books apparently thought kids were extremely superficial and incapable of emotional understanding Heinlein didn’t buy that and in Space Cadet he really hit his stride.23
The story concerns the challenges and adventures encountered by Matt Dodson and his three friends Tex, Oscar, and Pete all report for training to enter the interplanetary patrol in the Year 2075. As cadet, they go through a training Period typical of any present – day military academy, such as west point or the Naval Academy. They are put through a selection Process that includes intelligence, emotional, Physiological and psychological tests. They are hassled by upperclassmen, subjected to rigorous physical training, and pounded through academic courses. They put in time in Practical training with real and simulated equipment. The Patrol is charged with keeping the Peace on Earth and her dominions in the solar system and is considered the Premier military organization in the system. Entering and completing the course of study at the academy is challenging even for the best as matt discovers early on. Despite setback frustrations and at one point, an aborted decision to quit, Matt Perseveres and eventually earns a duty assignment on the Petrol mission.

Whereas the story started out quite more serious:

To Matthew Brooks Dodson,” the Paper in his hand read, “Greetings”:

“Having successfully completed the field elimination tests for appointment to the position of cadet in the Interplanetary patrol You are authorized to report to the commandant, Terra Base, Santa Barbara field, Colorado, North American Union, Terra, on or before one July 2075, for farther examination.24

*Space Cadet* is obviously a Coming age story as are most of the Heinlein’s Juvenile, but there is a lot more to it than that, as with the other juveniles. Heinlein is bringing up his readers his way. The reader is subjected to tone of Practice information about space travel and living in space. There is humour in a sub – plot
based around the bizarre aunties of Tex’s Uncle Bodie. There is a good deal of emotional content – at one Point, Mat gets depressed, and almost drops out. Heinlein also lovingly portrays the life of a cadet and what it means to serve in the military. The whole book is lesson after lesson, but done so subtly that kids never knew they were being lectured to.\textsuperscript{25}

\textit{Space Cadet} was Heinlein’s third Published novel, and is the second in his series of ‘Juvenile’ works. It revolves around the experiences of a young north American boy from Des Moines, Mat Dodson, who enrolls to became a member of the petrol, an elite Peacekeeping force whose task is to maintain Peace on earth and in the wider solar system by use of negotiation and orbiting atomic weapons. The novel follows his Progress through the academy as he learns to became a spaceman, and on his First Mission out of Earth orbit, as the second in the series, it is difficult not to compare the book with the earlier \textit{Rocket ship Galileo}.

\textit{Space Cadet} is by far the stronger book. Whereas \textit{Rocket Ship} had a similar cast of four boys all attempting to become spacemen, the three Younger in \textit{Space Cadet} are very well differentiated. Matt is Protagonist and as such is more of a sympathetic everyman character, whilst his companion Tex, hailing shockingly enough from Texas, is a Confident, slightly unruly character full of tall tales about the exploits of his Uncle Brodie, and the other lead, Oscar, is Venation, and has difficulties with culture shock and homesickness. This is a breath of fresh air From Heinlein where beforehand his characters were, for all intents and Purposes’, interchangeable; here they are well rounded and likeable.

Most of the book is taken up with their Progress through space academy, and much of the detail and feeling is drawn from Heinlein’s own time as a cadet in the Naval Academy at Annapolis in the 1920’s. Because of this, it feels very real
and richly detailed. The scientific descriptions and expositions were thrown in almost at random and at great detriment to the story and pacing, here they are timely and relevant, and add greatly to the feeling of realism for both the experience of Matt at the academy, and for the world building.

One of the most interesting aspects of the book is the world building in general. Heinlein has set up a massive system to support the Progress of one Young man through his education, and only hints at this creation in a wonderfully subtle way. The idea that humanity is kept in check by the constant threat of atomic Force from space yet all Nations contribute to the upkeep of this system by funding the Patrol through their taxes, is a very interesting one, and is only noted once or twice. Once when Matt has an argument with his Parents about it, proving that his allegiance has become to the patrol rather than to his original nationality and again, when it is briefly mentioned that the patrol is both the object of many Earther’s ire and a highly glorified and respected institution at one and the same time. Aside from the brilliantly thought through Concept, this shows an increased respect from Heinlein for his readers. Instead of towing one simple line such as ‘Nazis are bastards; it is recognized that even Young readers can understand ideological dichotomies on a bare – bones basis.

In Practice, the juvenile label is nothing more of an indicator that this is a coming-of-age story. Young Matt starts the novel as the typical kid; starry-eyed and hopeful, eager to learn and ready to take on the world Training throws at him one obstacle after another. Matt must rise to each individual challenge to pass muster. Along the way he grows by learning some cold, hard lessons about like “You can’t go home again” and the importance of responsibility. This is the typical Formula for classic juvenile novel and one Heinlein helped define “while today’s
young” title often deal with very mature themes, *Space Cadet* is a safe book for parents who want to give their kids some good, clean fun and positive role models.

Most of Matt’s baddies are equally determined to make the grade. “Tex” is a Fellow Terran who is Very fond of telling family stories mostly about the wild adventures of his Uncle Bodie. Oscar lived on Venus before training but also Possesses the will to succeed. One exception to the display of Positive messages is via the antagonist, Burke, who offers a too - minor counterbalance to the other do-gooders.

Although some of the dialogue between the Young characters was a bit Corny, Heinlein’s skillful writing is clear and easy on the digestion, making this a quick read. Several of the scenes are very well done and evoke a sense of wonder: the space walk, flight training, etc. The scenes of the book were quite exciting as Matt and friends embark on a rescue mission to Venus, upon landing, they encounter the amphibious natives to which Heinlein gives an interesting cultural. Their local customs are another obstacle that the boys must face if they are ever to return home.

*Space Cadet* builds a post 2100 solar system where Venus is not only habitable, but inhabited, where mars and Ganymede are colonisable, and spaceships are rocket – shaped and can take a couple of Years to travel between planets. Military academy stories share many of the same beats and cadences of boarding school and wizard school stories: new comer arrives at school, gain an antagonist, builds lifelong friendships, hovers between overwhelmed and over – achiever, increases in competence and then usually encounters a challenge “out of their Pay scale,” something circumstance mean that the student and his or her plucky band of friends must deal with themselves.
Space Cadet hits these notes without any really surprising turns. Our Plucky newcomer, Matt, is a sample of a fine and upstanding teenager’s – modest, enquiring, and honest to a fault. And that’s fortunate indeed because he’s trying to qualify for an organization which emphasizes intellectual exceptionalism as a means of creating people of higher moral fibre – people who have the responsibility of keeping the peace in a post – nuclear war would, and who are entrusted with the maintenance and control of a large number of nuclear weapons ready to enforce that peace in a nuke – the – site- from – orbit fashion. The science, the quest for knowledge and understanding while living up to a valorous tradition, is the meat of the story.

There is a strong emphasis in the story on not being racist – with careful display of the multi-cultural nature of the patrol, as well as a need of respect local customs, including the customs of the inhabitants of Venus, who become tangled in the end game of the story. On the whole, for its time,’ space cadet’ is quite a forward – tanking novel in its intention. At the same time, this is a multiculturalism filtered through a very American channel. The values of the Patrol are extremely American. The Academy is based in the US.27

Heinlein’s desire to inspire and young generation into space is highly evident. In this he urges them to dream big and reach for the stars. You can bet his calculations about space travels as far as astrogation is concerned are probably dead on even though he does not bore his audience with them. Technologically, many things he speaks of; cell phones, hydraulic beds, Computers etc. are not real in his day have become science fact in ours. Socially, you see that development of his first military’ ideas in many senses as the patrol is a group of volunteer professional who strive a man to be the best men they can be politics and how long
term peace would lead to apathy Heinlein dealt with space travel two decades before we went to the moon – what kind of technology would be describe as existing in the year 2075 A.D. that novel is set in. He talked of escalator’s moving sidewalks, and cell phones, Matt Dodson the hero was walking with a buddy early in the story when he hears:

Say, your telephone is sounding”
“oh” matt fumbled in his pouch and got.
Out his phone. “Hello”.
“That you, son?” come his father’s voice
“Yes Dad”
“Did you get there all right?”
“sure, I’ am about to report in “
How is your leg?”
Leg’s all right, Dad.28

And later we can deduce he predicated water beds in this next passage, calling them “hydraulic beds.”

The room was adequate but austere. Matt slept in a hydraulic bed at home, but he had used mattress beds in summer camp.29

His prediction about the new shape of Denver in 2075, well, the jury is still out on that one. Matt is started out at the surface of Earth about a hundred miles away.

That’s the Base, Just below”, the pilot was saying.
“Look sharp and you make out Hayworth Hall, maybe, by its shadow.”
“Over there - see? – is the crater where Denver used to be.
Now look south-tha brown stretch is Texas: you can see the Gulf beyond it.30

Another “prediction” by Heinlein came when the Cadets take their oaths, however, the way they took them was disquieting to me – could be exactly the way we are going to be in another 71 years:
This I solemnly affirm in the Name I hold most sacred.\textsuperscript{31}

By God, them may take God’s name off the nickels, too, by then or remove the Ten Commandments from the courthouses and make functional atheists’ of the citizens; certainly no one will thank the name they hold most sacred for that bit of pettifogger.

One other invention Heinlein predicted, but one has to look carefully and understand that very small waves correspond to very high frequencies. We had the choice to call them microwave ovens or high – frequency ovens. We chose the former and Heinlein guessed the latter. Still – great guess – probably made before the epochal event of the Hershey’s Chocolate Bar melting in the engineer’s pocket as he walked past the high-frequency antennae.

Theoretically every rational taken aboard a patrol vessel is pre-cooked and ready for eating as soon as it is taken out of freeze and subjected to the number of seconds, plainly marked on the package, of high – frequency heating required.\textsuperscript{32}

One place he missed big time was the prevalence of tiny computer all over the place. Back on Earth was a large computer which did celestial navigation calculations, but there were no hint of any computers on board the space craft matt and his patrol buddies piloted and navigated. Even the programmed instruction was done by 1948 technology – spools of film to be viewed and studies, just as my third grade teacher sued in 1949. But, even worse than that, no computers to track incoming asteroids that could bust an aster – hold in their tiny space jeep as they cruised the asteroid belt. Haman eyes and brains were still being pressed into service to do a simple task that computers already do every day for air traffic controllers and jet pilots.
Matt took along a supply of study spools on his first week of search intending to play them on the jeep’s tiny, earphones-types viewer. He did not get much chance; four hours out of eight he had to keep his eyes glued to the search scopes. During the four hours off watch. He had to sleep eat; attend to chores, and study, if possible. When we teach that Matt’s buddy Oscar is from Venus, we know that the myth of the 1940s that Venus had a greenhouse atmosphere was at work on Heinlein. All the scientists thought that the clouds covering Venus were water vapors and that the surface temperature of Venus was 68 degrees F or 20c. A nice shirt sleeve environment where guys like Oscar could grow up. Well, all the scientists except one thought Venus was a greenhouse – Immanuel Velikovsky. He said Venus had a surface temperature of 800 f (paper burn at 451 f), and the clouds were hydrocarbons and unsuitable for breathing. Therefore definitely no greenhouse, but an uninhabited and uninhabitable planet.

Naturally, the establishment scientists of the time scoffed at Velikovsky told him how wrong he was kept the book publisher MacMillan from publishing his book, and made a scientific pariah of him, when Venusians probes proved Velikovsky was right. What they said, it effect, we were right about Venus wrong – it was a greenhouse a long time ago, we see and that caused a concentration of carbon dioxide to build up, and the temperature of the whole planet to rise until it got be 800f. Now this was silly enough, but these reputable scientists weren’t finished with us yet, They also warned that if we don’t stop emitting carbon dioxide and other related chemicals into the air, then we will have the same greenhouse effect on Earth and we will eventually all burn up, too! They even created several phrases to scare people with and trick them into giving them tax money at do their research with – greenhouse gases’ and ‘global warming; All this
because they didn’t wish to admit that they were wrong and Spaces Cadet Velikovsky’s predictions were right – not only of the surface temperature of Venus – but also about a couple of dozen other things which have also proved to be true.

Matt and his jeep lands on Venus, but the jeep sinks out of sight and he and his crew get taken below the water to a Venerian civilization consisting at all female creatures requiring specialized diplomatic skills to handle them Matt and his crew risqué the space ship ‘Astarte’ which crashed over a hundred years earlier on the plant, about 1975, which makes that another good guess for Heinlein, since by that time the USA had sent a manned expedition to the Moon, and could have made a manned trip to Venus if they had wished to. But, we see, it turned out Velikovsky was right, so they couldn’t when the first unmanned probe to Venus burnt up in the atmosphere, as Velikovsky predicted.

Heinlein’s Space Cadet is still contemporary and is among the best child protagonist science fiction in the YA range. Fred Erisman finds that Heinlein’s use of aliens shows us that “the (human) race must outgrow it’s inherit racism” and Williamson has observed that the extraterrestrials of Heinlein’s juveniles “Often serve as teachers for the maturing heroes.” To date, however, no critic yet has examined Heinlein’s early inhabited solar system in any detail. In Space Cadet a cadet to the interplanetary patrol is informed that:

The arts of space and warfare are the least part of your education… much More importance is the world around you, the planets and their inhabitants extraterrestrial biology, history, cultures, Psychology, law and institutions, treaties and conventions, planetary ecologies, system ecology, interplanetary economics, applications of extra territorialism, comparative religious customs, law of space to mention a few.34
When the cadet questions the utility of studying the extinct inhabitants of the moon, since “they’ve been dead for millions of years” he is told blandly “keeping your minds loosened up” As readers learn, the civilizations of past teach humanity some valuable lessons.

Heinlein creates not only self – destructive worlds but flourishing ones as well, thought the species of these latter ones often thrive in ways which humanity is only beginning to learn to appreciate, whereas Luna and the fifth planet remind us most glaringly that pride must be tempered with wisdom, Venus and Mars show us example of the wisdom for which we eventually must strive, Humans claims a psychology trained officer in Space Cadet basically are motivated is another sort of cat, and so is the Venerian” This important difference is what makes the inhabitants of Venus and Mars worthy of our attention.

Heinlein’s first works with Venus in “Logic of Empire” (1941), but here the indigenous culture is drawn rather unambitiously. The lisping amphibian Venetians merely tag along with the human colonist, hoping to hum a “thigarck… the staple medium of trade when dealing with the natives.” ‘Space Cadet’ fleshes out a Venerian civilization much more satisfying and more fitting for Heinlein’s overall view of intelligent species’ place in the cosmos. Whereas the earlier natives are caricatures added merely for local color, the Venerians of Space Cadet are subtle reminders that humans are not necessarily lord of the cosmos; the natives are more scientifically proficient, socially complex, and morally enviable than anyone previously had supposed.

In Space Cadet an officer tries to explain at a cadet that the concept of the “other world” just might be valid, even though the human do not understand it:

Let’s forget the usual assumption that a Martian is talking in religious, symbols when he says that we live just on:
“one side” while he lives on “both sides.” Suppose that what he means is a real as butter and eggs that he really does live in two worlds at the same time and that we are in the one he regards as unimportant. If you accept that, then it account, for the Martian being unwilling to waste time talking with us, or trying stuffy, he is being reasonable. Would you waste time trying to explain rainbows to an earthworm?36

It is important to keep in mind that this book is copyright 1948, which means it was written before then His prediction of many “things to come” are early close to what happened over the next thirty plus year, His ‘Space Cadet’ was places the main “Earth” base for training the cadets to Colorado, this well before the US Air force Academy was even planned for. In his future world race, religion, and creed don’t matter all are viewed as equal. In fact one of the important tenants of leadership taught by example in this book is that future officers have to see past a person’s background, race and planet of origin to treat all begins equally. One of the early characters in the story a self-promoting jerk who only watches out for number one and resigns prior to his finishing the Academy, later returns to show what happens when you treat others as an inferior race, threatening them from a perceived point of being superior in thought and strength.

There are a couple sections that show themes Heinlein will explore in future novels. There’s the wide gulf between the civilian and military worlds. That Matt discovers when he tries to explain how the atomic bombs circling the earth ready to be dropped down the gravity well on any city that gets uppity – are maintained. This leads to some bizarre lines such as:

Now Catherine you can’t imagine malt bombing Des Moines, new can you? And that is what it amounts to. Tell her, Matt.37
So for young and adult renders, *Space Cadet* brings with it the charm of ‘Golden Age’ science fiction: the finned rockets the elite space organization and a few aliens thrown into the mix. Heinlein nails probable phones, but computers are room sized and rockets land on their tail. In his perfectly run solar petrol, he includes officers from all races and yet the petrol is firmly phallocentric. As the children *Space Cadet* is pretty bland stuff. To children brought up to Harry Potter, video games and anime, *Space Cadet* is more liked to induce eye – rolling than a sense of wonder.’

In *Space Cadet*, Heinlein took a simple idea take modern day Annapolis and imagines how it might be in the future….and run away with it. He has its museums, past heroes, uniforms, traditions, entrance exam, and classrooms (on earth and in space), foods table manners, math and science problems, language instruction, philosophy classes on Doubt and dozens of other details all worked out. In one respect the patrol is not like Annapolis. When the young hero asks for a transfer to the space marines his superior officer refuses to grant it, the marines are military, he say, the patrol is not. The marines are intended to deal with emergencies after they occur. The patrol is intended to prevent the emergencies from occurring. In terms of intelligence and personality, Matt is suited for the patrol—not the marines.

When Matt tells the officer that it is his privilege to turn him down, he is told. “Damn it, Dodson, it is not my privilege; it is my duty.” This piece of mild profanity was something almost unheard of in a juvenile novel back in 1948. And that brands us to another characteristic of Heinlein’s juvenile. Heinlein was always fond of dropping a mild “shocker” into his juvenile novels to elicit a bit of thought and to make his background seem a bit more colorful and realistic. Usually, it
worked fairly well. That one scene along would stick in a younger reader’s memory.

Space Cadet offers inspiration and an element of hope while acknowledging that human nature is innately flawed. It speaks to the interrelationship between technology and humans, making it clear that technology should serve people, not people serving technology. It sketches out what looks like a viable organization structure for an arm of the military that the US will eventually need (and despite their claims to the contrary, the Air force’s belief that their culture can be adapted to extended spaceflight with crews of more than 4-5 people larks plausibility). The emphasis on the need of cultural studies and language skills in his fiction rings true as the US services realize that these are at least as important as vehicles and weapons.  

Space Cadet is, the action of the story is interspersed with science lesson: such as zero gravity, space walking, human transfer orbits, recycling in self-contained environments and numerous other subjects, except of specific matters pertaining of conditions of Venus, which were unknown at the time the book was written, most of the science presented in the story remains unchallenged. And Heinlein’s own background as a graduate of the US Naval Academy of the space patrol. The action is Matt’s – a teen ager’s centered and Heinlein keeps description not directly related to the story to a minimum. Matt and his friends are likeable young and you well enjoy watching them grow up to the challenges they face.

Heinlein has played along and significant role in the evolution of science fiction into a more sophisticated genre. He began writing in the post – Depression science fiction magazine era, when simplistic plots and farfetched gadgets were the norm; Heinlein’s with style and his use of social theme and realist technology with
child protagonist helped give rise to speculative science fiction. This emphasized probable technological and societal developments projected into future worlds.40

After World War II, Heinlein wrote a series of novels aimed at juvenile audiences which some critics consider his best work. This book feature naïve teenage protagonist, who in the course of wild adventures, learn to be “competent” human being. Like all his works, these novels advocate “survival of the most competent,” Heinlein’s reliance on social Darwinism has been a constant source of controversy among critics of his work. Heinlein’s survivors are those adopt a military – like discipline and outlook and same novel like Space Cadet glorifies militaristic society. Although some critics find fault with Heinlein’s rigid logic, almost all agree that his hold exploration of social theme actively challenges a reader’s view of society and his helped elevate science fiction above escapist entertainment.

From 1947 through 1948, Robert Heinlein was primarily an author of science fiction aimed at the “Juvenile” market, specifically at teenage boys. Beside two minor novellas serialized in Boys’ Life, the magazine of the boy scouts of America, there were twelve dazzlingly successful novel published as a juvenile series by Scribner’s. These dozen novels have proved to be as popular and influential as anything Heinlein ever wrote, all going into continual mass-market reprinting, with several transposed into movie, television, and comic-strip versions.41

These works form a coherent epic, the story of the conquest of space like the tales and sketches Heinlein was publish in general-circulation magazines, these longer works are optimistic expansionary, romantic, pulsing with missionary zeal for a colossal human endeavor and also throbbing with a fever to escape from the
urbanized, complex, supposedly reutilized and imprisoning experience of Earth. The central figure are always boys making their passage into becoming men, emblems of a human race attaining what Heinlein construes to be its maturity in the solar system, the galaxy and beyond.

The movement is outwards bound. The first novel describes the first trip to the moon, the next five are set on and around Venus, Mars the Asteroids and Jupiter; the ensuing five all involve voyages between Earth part and parts of our galaxy beyond this solar system; and the final one climax someplace in the Lesser magellanic cloud where our race is in the Lesser magellanic cloud, where our race is judge by the composite mind of the Three galaxies.

The point-of-view character is usually a teenage boy attempting to enter the adult world and often trying to relate to what he perceives as the even stranger world of females, who sometimes seem to him more alien than the strangest extraterrestrial life forms. Space travel provides some ideal settings for an author who believes in the primacy individual or small-group achievements and who wishes to indulge fantasies of escape from the late industrial world. Small heroic groups or individuals may be placed in dramatic situations along in spaceships or on other planets, where their actions may have great consequences. There is, however a contradiction for space travel is the product of an entire highly industrialized, complexly organized society. Unaware of this early science fiction could ignore it. Hence there was often the spectacle, amusingly archaic to us, of some long genius inventing and building a spaceship in his workshop and launching it from his backyard. Later, a single industrial corporation could be imagined as the sole creator of a spaceship, of course through the genius of one or two scientists or engineers. By the close of World War II however, it was fairly
obvious that space travel would take the kind of vast, highly socialized efforts that had developed the Nazi v-1 and v-2 rocket bombs or the US atomic.

*Space Cadet* book consist of extended tests of endurance loyalty, courage, intelligence integrity, and fortitude. They dramatize a personal ethic and pervasive social Darwinism, displaying how and why “fit” types survive while the “unfit – the sulkers, the weaklings, the whiners, the lazy, the self-centered, and the vicious – are eliminated.”

42
End Notes to Chapter –II


8. Ibid., p. 62.


12. Ibid., p. 127.

13. Ibid., p. 129.


17. Ibid., p. 152.


29. Ibid., p.24.

30. Ibid., p.40.

31. Ibid., p.49.

32. Ibid., p.135.

33. Ibid., p.143.
Science Fiction Studies, Vol.23, No.2 (Jul., 1996) pp.245-255. Source- 

35. Williamson, Jack. *Youth against Space: Heinlein’s Juveniles Revisited.*  

Science Fiction Studies, Vol.23, No.2 (Jul., 1996) pp.245-255. Source- 

37. Heinlein, Robert A. *Space Cadet*, New York: Tom Doherty Associates, LLC,  
1975, p.189.


39. Robert, Thomas J. *Science Fiction and Adolescent. Childers’s Literature:  

40. Bruce. Franklin, H. *Future Perfect: American Science Fiction of the  
1978.

Advent, 1968.

42. Slusser, George Edgar. *The Classic Years of Robert A. Heinlein*. Milford  