

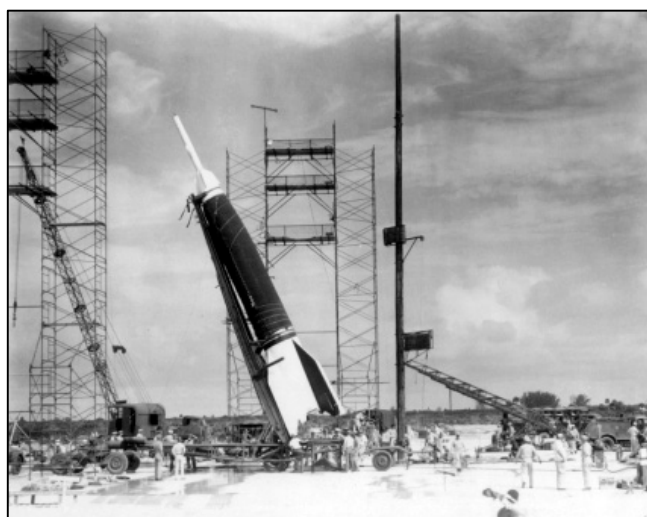
Cape Canaveral – A Noble Endeavor

Three...Two...One...Ignition...Lift-off!

Those words are a familiar prelude to the launch of a rocket at Cape Canaveral. That countdown sequence marks the beginning of an exciting journey. In the context of today, the journey could be placing a communications satellite into orbit or sending astronauts to a space station. The launch is the beginning of the journey for those who watch the launch. However, the launch is also the end of a much longer journey. That journey is the story of how the rocket was built, how it was tested, how it was assembled and how it came to be on the launch pad.

The journey leading up to those few seconds of excitement at launch time was preceded by years of preparation. The preparation included hundreds, perhaps thousands of people – engineers, technicians, mechanics, electricians, truck drivers, technical writers – the list goes on. Not to be forgotten are all of the pieces of equipment that were used to fabricate, assemble, test, and move the rocket and its subassemblies. Entire factories of people and equipment were involved in preparing a rocket for launch. And once the rocket had been created and tested thoroughly came the big test – the actual reason the rocket was created – the launch. The rocket needed to be transported to the launch site, set on a launch pad and then checked some more.

Since 1950, Cape Canaveral has been the primary launch site for the United States' military and scientific rocket launches. The first launches at the Cape were supported by existing equipment modified to fit the unique needs of a rocket launch. Airplane hangars, lots of them, were built at the Cape to protect the rockets and support crews



Construction cranes and building scaffolding were used to service the Bumper rockets in 1950

from the blazing hot Florida sun. Concrete pads were constructed on which a rocket launch stand could be placed to hold the rocket in a vertical position. Standard semi-trucks and trailers were modified to carry their valuable cargo to the hangars and launch pads. Construction cranes were pressed into service to lift the rockets from hangar to truck to launch pad. To allow work on the vertical rocket at levels going all the way to the top, simple construction scaffolding was assembled on the pad. The

scaffolding was put on wheels so it could be moved out of the way at launch time. These



A lot of manpower was needed to move the scaffolding around the launch pad

were the standard procedures for the very early Cape launches when only a few rockets per year were on the launch manifest.

But even in those early years at the Cape, it was recognized that modified equipment was not the way to support a faster launch pace. By the end of the 1950's, there would

be hundreds of launches per year. Scaffolding, construction cranes and modified trailers were neither robust enough nor reliable enough for professional handling of these expensive and sometimes delicate flying machines.

The alternative to the scaffolding and crane procedure was to design a more permanent structure with built-in cranes and hoists for unloading transporting trucks. Such a device would ideally have its own wheels and motors for moving it out of the way before launch. It would have elevators to carry workers to multiple work platforms at varying heights that surrounded the rocket. In a final touch of elegance, a small office could be provided at the base. With all its accessories, the apparatus would be a self-contained work site. Those who work on rockets in now recognize this structure as a device that has had many names over the years. It's been called a launch support stand, a gantry, and a mobile service tower, and more. In the early 1950s, the commonly used name was "gantry."

What's a Gantry?



Gantry crane at the Wilkes-Barre CNJ rail yard

The word "gantry" has a history that goes back hundreds of years, at least to the sixteenth-century. The most commonly quoted origin is from the Old French "gantier", which is a four-footed stand for a barrel. In later years, a British variation defined it as an area behind a bar where bottles were displayed. In more modern times, gantry defined a bridge-like framework with signals or a traveling crane over railroad tracks.

Launch Complex 4

An important rocket under development in the early 1950s was the U.S. Army Redstone, a tactical ballistic missile. The Redstone was a direct descendant of the famous V-2. A number for the launch complex (number 4) was already reserved for the Redstone. Complex 4 would be built immediately next to Complex 3, the site of the first launch



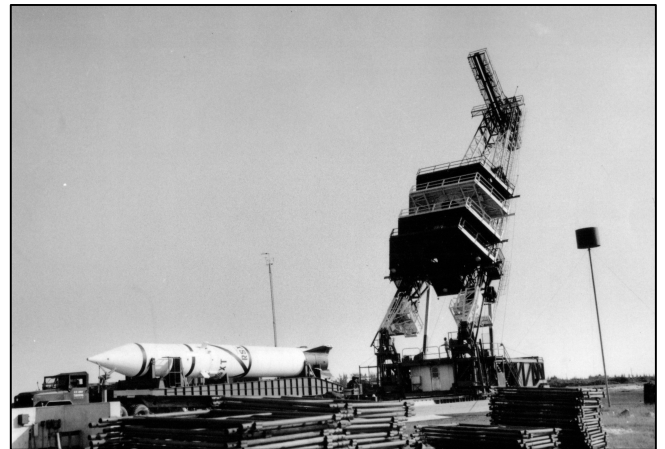
The Launch Complex 4 gantry shortly after assembly at the Cape in 1953. (Credit: Pete Noble)

from the Cape on 24 July 1950. That first launch from the Cape was a modified V-2 called Bumper. Bumper was serviced on the launch pad with the typical construction scaffolding and cranes.

To punctuate the new Redstone program with new equipment, the concept of

construction scaffolding and cranes was left behind and an entirely new custom gantry was designed. The U.S. Army Corps of Engineers issued a contract at a reported cost of \$428,000 to the Noble Company of Oakland, California for construction of this new custom gantry for Launch Complex 4.

Noble was a specialized contracting business with the name deriving from the Noble family owners. With its own metal working department and machine shops, it was well equipped to handle the gantry



The mast of the Noble gantry at Launch Complex 4 could be lowered in advance of a hurricane

construction job for the Cape. The company also had a large work yard along the Oakland waterfront with easy access to rail and sea transportation necessary for transport of materials in and finished products out. A history of the company follows later in this paper.

Blueprints for the Launch Complex 4 gantry clearly show the name “Noble Company” with the company’s signature address at 1860 7th Street, Oakland. The gantry on the

blueprint is named a “Missile Test Stand Assembly”.



The Noble Co. name (inset) on the hammerhead crane atop the Launch Complex 4 gantry

All the features necessary for a working rocket gantry were evident on the plans – office at the base, vertical mast with hoists for lifting rockets, moveable work platforms at different levels, elevators on each side, and wheels to move the structure along rail tracks.

The gantry was constructed in the Noble Company yard in Oakland, California and then partially disassembled and moved to Cape Canaveral by rail. Following is an extract from the U.S. Army Corps of Engineers, History of the Canaveral District 1950-1971 (South Atlantic Division, 1971).

“The Redstone Service Tower used at 5/6¹ evolved out of efforts to provide a more economical and versatile structure than the gantries used by the Germans in V-2 experiments in World War II. A reclining type single-mast structure with cantilevered access platforms capable of encircling the missile was determined to be the most advantageous device for Redstone. An “A” frame mast, as the backbone supporting the cantilevered access work platforms, towered 140 feet above the launch pad. The mast was supported by a large structural steel base, mounted on railway tracks and



Launch Complex 4 gantry servicing the first Redstone to be launched at the Cape (mentioned in the Corps of Engineers history)

¹ The “...Redstone Service Tower used at 5/6...” is the Launch Complex 4 gantry that was moved to Launch Complex 5/6 in 1955.

capable of moving under its own power to and from the missile. Elevators traveled up and down the mast, with stops at various work-levels, to a 15-ton hammerhead crane mounted at the top of the structure. Modeled on the open-faced masts used in oil fields, the Redstone service tower was built by Noble Company of Oakland, California, transported to Cape Canaveral in 14 railway cars, and reassembled at the launch site (by seven Noble men, within five days after delivery) and made immediately available to service Redstone's maiden voyage."

The Redstone's maiden voyage mentioned in the text took place on 20 August 1953 at Launch Complex 4. Although we have no

evidence of the precise dates of departure from California and the arrival at the Cape, it is reasonable to assume that the railway convoy left the Noble Company in July 1953 and arrived at a nearby railhead, possibly in Cocoa or Titusville, also in July. Trans-loading from the railhead by truck to the Cape would have probably placed the gantry on-site right around the first few days of August. The Noble Company workers apparently worked quickly and assembled the gantry in only five days. If all happened as assumed then the gantry would have been ready to use about two weeks prior to the launch of the very first Redstone on 20 August 1953.

Other Noble Endeavors

Before the rockets came, Cape Canaveral was a huge undeveloped land mass isolated from the Florida mainland by two tidal lagoons, named the Banana River and Indian River. The U.S. Government already owned some land on the Cape for use as a lighthouse site. The Cape Canaveral light in one form or another had existed at the Cape since the 1840's. Other than that, only a few homesteads and small commercial ventures were found here and there. Some attempts had been made in more recent years to develop tracts for sale to prospective homeowners.

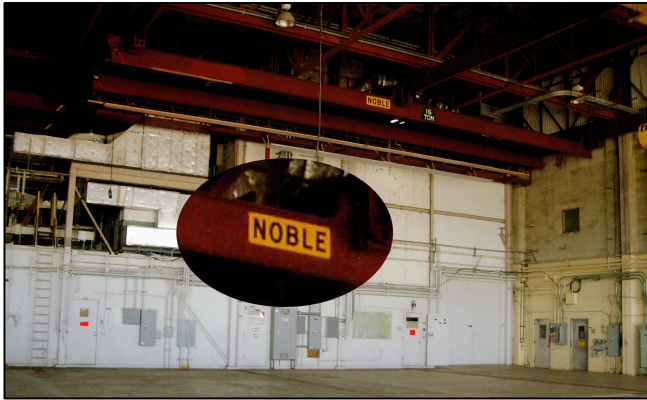
Aside from a few barely-paved roads, there was no ready-made infrastructure to build upon. With more and more rocket programs coming in, a lot of construction was needed at the Cape during those early years of the 1950's. Everything, including roads, water, electricity and buildings had to

be built from the ground up on sandy soil or marshland. To work on large rockets in protected areas, the Government tapped its stock of ready-made blueprints and built airplane hangars. The first hangar, Hangar C², was put up right next to the existing lighthouse. Other hangars were built further away from the shoreline in a cluster that has come to be known as the Industrial Area.

One feature necessary to these new hangars was a series of overhead traveling hoists called bridge cranes. The cranes, sometimes more than one per hangar, were used to lift rockets and other parts from transporting trucks and place them anywhere on the

² Hangars A and B were already in use at nearby Patrick Air Force Base, the main support base for the Cape. To avoid confusion with duplicate names, the first hangar at the Cape was designated Hangar C.

hangar floor. The Noble Company of Oakland was contracted to add bridge cranes to nearly every hangar in the Industrial Area. Original documentation for the cranes is dated throughout the year 1954.



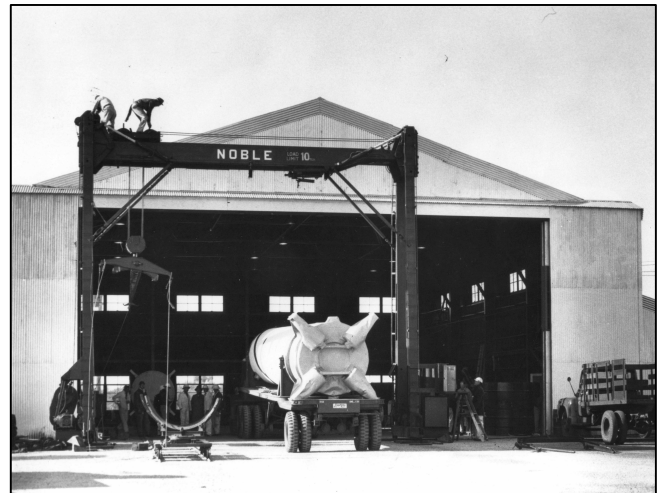
Noble (name inset) bridge crane inside Hangar S, home of Project Mercury



Noble (name inset) bridge crane inside Hangar R, home of the Redstone and Explorer I satellite

After more than 60 years of service, these cranes are still in use.

One unusual structure, Hangar O, was built less than a mile from Redstone Launch Complex 4. Hangar O was considerably smaller than the standard airplane hangars found in the Industrial Area and was initially used as a processing point for the Redstone boosters before moving them to the launch pad. Instead of a bridge crane inside Hangar O, Noble Company was contracted to build a smaller fixed gantry



The unique Noble gantry crane at Hangar O preparing to lift in incoming Redstone from a transporter

crane just outside the hangar doors. This was a gantry crane in the true railroad sense of the word. Its sole purpose was to lift the Redstone from its transporting trailer and set it on a rail-mounted work dolly. The dolly allowed the rocket to be moved in and out of the hangar and permitted technicians to work on the rocket inside the hangar.

Launch Complex 26

Looking beyond the Redstone, other programs were on the drawing boards at the time. One of those programs involved a larger and longer range U.S. Army rocket called the Jupiter. The Jupiter was not only

a larger rocket; it was also a leap forward in technology. One major improvement was the engine, a completely different design that could be moved – gimbled – by hydraulic cylinders to steer the rocket. The

venerable Redstone with its V-2 heritage did not have a moveable engine. Instead, the engine was pointed straight down in a fixed position. Engine thrust was steered by motor-driven carbon winglets or jet vanes placed directly in the path of the engine exhaust.

Every rocket programmed for launch at the Cape required a different launch setup. Because of the proliferation of rockets during those early years, new complexes were built at a rapid rate. The new Jupiter destined for Launch Complex 26 needed a different launch pad setup from the smaller Redstone. The concrete blockhouse, for example, was built almost twice as far from the launch pad to take into account the increased danger from the more powerful rocket.

One item that did not need to be considerably different was the gantry. The gantry built by Noble Company for the Redstone Launch Complex 4 was so flexible that it could easily handle the larger Jupiter. The catch was that the Redstone program still needed its gantry.

The obvious solution was to have Noble construct a duplicate gantry for the new Jupiter Launch Complex 26. While the two gantries appeared identical at first glance, they were a bit different. One difference was the height of the mast section with the Launch Complex 26 mast being shorter by about 23 feet. A visible difference was the metal nameplate on the hammerhead crane. The gantry built for Launch Complex 4 displayed the name "NOBLE CO." on the

hammerhead plate. The gantry for Launch Complex 26 simply displayed "NOBLE".

The gantry's new home, Launch Complex 26, was programmed to be built



The Launch Complex 26 gantry under construction at the Noble facility in Oakland, March 1957 (Credit: Mike Noble)

immediately next to Redstone Launch Complex 5/6 which was under construction at the time. Each launch complex was to have two launch pads and through a brilliant stroke of planning all four launch pads were built in a straight line. This allowed the gantry rail tracks for the four pads to be connected together in a straight line. The straight-line feature, with the

addition of a few spur lines to the east, allowed either gantry to be moved into place at any of the four launch pads. Construction on Launch Complex 26 began in 1956.

Security being tight in those early days of rocket testing, the Noble Company was instructed to test the raising of the gantry



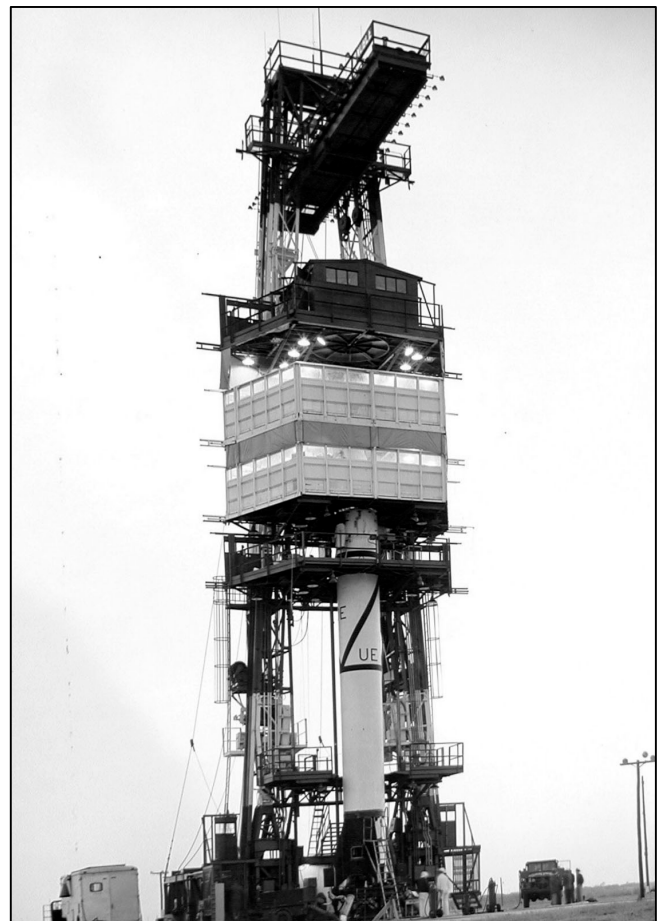
The gantry self-erecting mechanism being tested at the Noble facility (Credit: Pete Noble)

mast in Oakland during the hours of darkness. One fateful night, however, the mast became stuck at a 45-degree angle. Before the mast could be moved, a local press photographer snapped a picture of the unfamiliar device. The next morning that photo appeared on the front page of the local newspaper accompanied by a story speculating about what it was.

As with the first gantry, this one was shipped from Oakland to the Cape in 14

railway cars. The complex, complete with new gantry, was finished in time to service its first launch, a Jupiter, on 27 August 1957. Blueprints show the official name for the gantry as “Missile Service Stand”, revealing yet another name for the generic gantry structure.

Only five months into its life, the Launch Complex 26 gantry serviced its most



Launch Complex 26 gantry servicing its most historic vehicle, the Explorer I satellite. This gantry is nearly a twin to the Launch Complex 4 gantry.

significant and historic rocket. The rocket was a modified Redstone called Jupiter-C (AKA Juno I) that carried a small 32-pound satellite into earth orbit on 31 January 1958. The satellite, Explorer I, was the first satellite placed into orbit by the United States.

Until Launch Complex 26 was deactivated in 1963, the Noble gantry serviced Redstone, Jupiter, Jupiter-C and Juno II rockets. Many of the launches were NATO training missions, but other significant payloads included the flights of monkeys Gordo, Able and Baker in the nosecones of Jupiter rockets.

Shortly after the complex was deactivated in 1964, planning began for an Air Force museum to tell the story of rocketry and the space program. That museum is still in

operation on Launch Complex 26 as the Air Force Space and Missile Museum. The museum's centerpiece is the Noble Company's contribution, the gantry. Subjected to the brutal Florida sun and nearby ocean salt spray for 50 years, the gantry was deteriorating badly and in need of a major restoration. That restoration began in 2005 and is still underway as of this writing. The historic Noble gantry that launched the United States into the space age is still in existence.

Launch Complex 5/6

To get back to the early 1950's, the gantry on Launch Complex 4 was serving the Redstone program well, but in 1954 a newer site, designated Launch Complex 5/6, was under construction about two miles away. Construction started in 1954 while Launch Complex 4 was at its busiest. Once the new site was ready, the gantry would be moved to the new launch complex. That time came



Launch Complex 4 gantry with mast lowered and ready to be towed to Launch Complex 5/6

in February 1955 when the move was placed in the hands of Leonard Brothers Transfer, a heavy trucking firm out of Miami.

To begin the move, the gantry mast was lowered to its horizontal position. Then the entire gantry was jacked up and placed on a series of rubber-tired bogeys. With two powerful semi-trucks doing the work, the gantry was moved slowly down Lighthouse Road to the new launch complex.

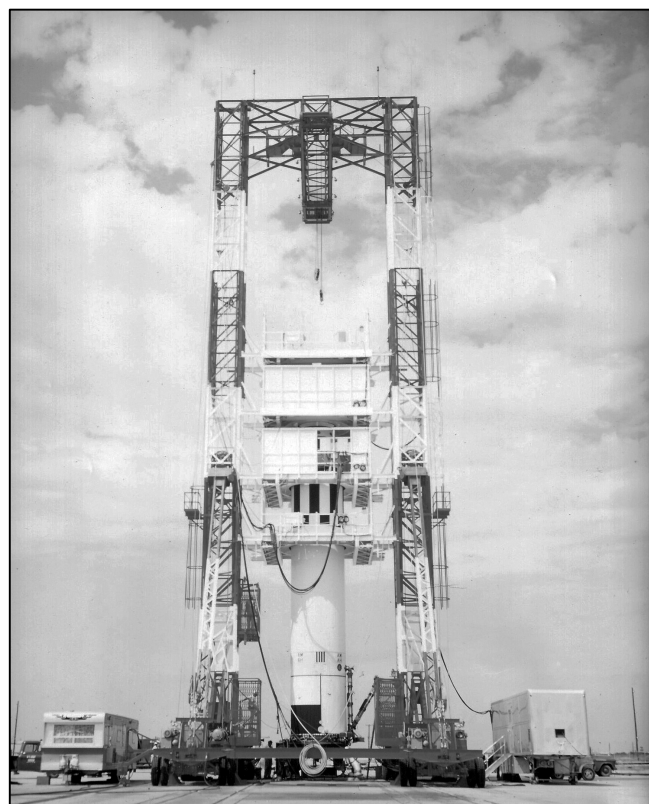
At Launch Complex 5/6, the gantry was set on new tracks at pad 6 and the mast was returned to its vertical position. The first Redstone launched from the new launch pad was on 20 April 1955. When pad 5 was finished in 1956, the gantry began moving back and forth between the two launch pads to service Redstone, Jupiter A and Jupiter C rockets.

A significant event in the history of this gantry happened in the late-1950s when this gantry was dedicated to Project Mercury, the man-in-space program. Because the gantry was dedicated to pad 5 for the high-priority Mercury program, another gantry was needed for use on pad 6 to support

continuing critical launches for the U.S. Army and newly created NASA.

In 1958, the Noble Company was contracted once again to build a gantry for the Cape. The new gantry to be used on pad 6 was named a “Portable Guided Missile Service Structure” and resembled a huge railroad gantry crane. It had the requisite mast (four feet taller than the pad 5 gantry) with hoist, movable platforms and elevators. It was designed to be mobile but not on rails as were the other Noble gantries. The left and right base units upon which the mast legs were mounted were custom-built heavy trailers with 12 rubber truck tires per trailer. The structure had its own electric traction motors and the front wheels had an automatic power steering device that followed a small guiding track mounted on the pad. This gantry did not have its own generator and office, but the structure was built to accommodate those features if they were needed later. In keeping with tradition, a “NOBLE” nameplate was placed on the hammerhead crane. The disassembled gantry was to be transported in 13 trailer loads by C-124 aircraft. Transport by air suggests that there was a sense of urgency to get the gantry up and operating without delay. The first missile to be serviced on pad 6 by the new gantry was the U.S. Army Jupiter mission AM-24 launched the evening of 30 September 1959, local time.

While the launch routine continued on pad 6, the attention of the world was focused more on pad 5. That attention peaked on 5 May 1961 when Alan Shepard was launched into space aboard a Mercury Redstone



U.S. Army Jupiter mission AM-24 being serviced by the Portable Guided Missile Service Structure built by Noble for pad 6 (Credit: Mike Noble)

vehicle. On that day, Shepard became the first U.S. astronaut to fly into space. The gantry built by Noble Company was a vital and visible structure in the days leading up to that launch. In fact, a frequently published photograph of the launch includes the gantry.

After that first flight into space, the gantry still had one more job to do. Another Redstone rocket and another Mercury capsule had to be prepared for the launch of astronaut Gus Grissom. The gantry did its job with a successful launch from pad 5 on 21 July 1961.

After Grissom's flight, Launch Complex 5/6 and the gantry were decommissioned and never used again. The first Noble gantry's

service life that began in August 1953 and which served at Launch Complexes 4, 5, and 6 had now ended in July 1961. The mast was lowered for the final time to await its fate. The date that the gantry was salvaged for its scrap metal value is lost to time – an unceremonious end to a magnificent history.



The shot seen round the world. Alan Shepard in Freedom 7 leaving pad 5 with the Noble gantry in the background. The photo was taken from a camera in the Noble pad 6 gantry. (NASA photo)

The square top gantry built for pad 6 did not meet the same fate. It was relatively new and very flexible in its design. With its replaceable adapter plates on each work platform, the gantry could accommodate rockets up to 9 feet in diameter. A decision was made in 1962 to disassemble the gantry and ship it to Vandenberg Air Force Base. Vandenberg was a launch site bustling with activity at the time. The former pad 6 gantry

was reassembled on Vandenberg Launch Complex 2E³ and put to work servicing space launch variants of the Thor missile. Those variants included the Long Tank Thor (Thorad), Thrust Augmented Thor (TAT) and Thor Delta all based on the Thor first stage booster usually fitted with an Agena upper stage.

Space launch boosters, which normally carry satellites into space, require a satellite preparation area around the top of the rocket. In 1966, a satellite preparation (clean



Delta 54 (E-1) on 10 November 1967 being serviced by the modified gantry on SLC-2E.

³ Launch Complex 2E (2 East) was originally known as Complex 75-1 pad 1 and used for U.S. Air Force and British Royal Air Force Thor launches. The complex has also been known as Space Launch Complex 2E (SLC-2E).

room) was added above the moveable platforms on the gantry. The gantry continued in operation until 1975 when the

pad was decommissioned and the gantry salvaged.

The Noble Company of Oakland



The first appearance of the company was in the 1894 Oakland city directory⁴. Robert J. Noble was listed as an architect and builder. The 1895 city directory reports him as having moved to Pomona in southern California. Other records show Robert J. Noble's nativity as Canada and of English and Irish heritage through his parents.

Robert and his family appear in the 1900 U.S. census for San Jose township district (AKA Pomona) of Los Angeles. He reversed his given names (a common practice) and was shown as James R. Noble, a carpenter, along with his wife and 3 children. The eldest son, Bertie (AKA Bert) was 9 years old and his presence is significant as future owner of the company. In that same township, a young Gladys Hathaway appeared. Gladys was to be Bert's future wife.

In 1910 Pomona, Robert was back to using his original name Robert J. Noble, and the family has grown to include 5 children. Robert described himself as a home building

contractor. Beginning in 1911, Bert Noble and his father Robert both appeared in the Pomona city directory associated with the company Robert J. Noble & Son. Bert was married to Gladys by this time.

The 1920 U.S. census listed Bert and Gladys Noble with 3 sons. Their second son, Jack, is significant because he will eventually take over the company started by his grandfather Robert and later operated by his father Bert. By 1923, Bert Noble was not only listed in the San Diego city directory as a general contractor, he was taking quarter page advertisements in that directory. Those listings continued through 1933 when he moved his family and company north to Glendale. By that time, Jack Noble had completed high school and entered Glendale Junior College. Jack's future wife, Helen Bentley, was living in Glendale during that time.

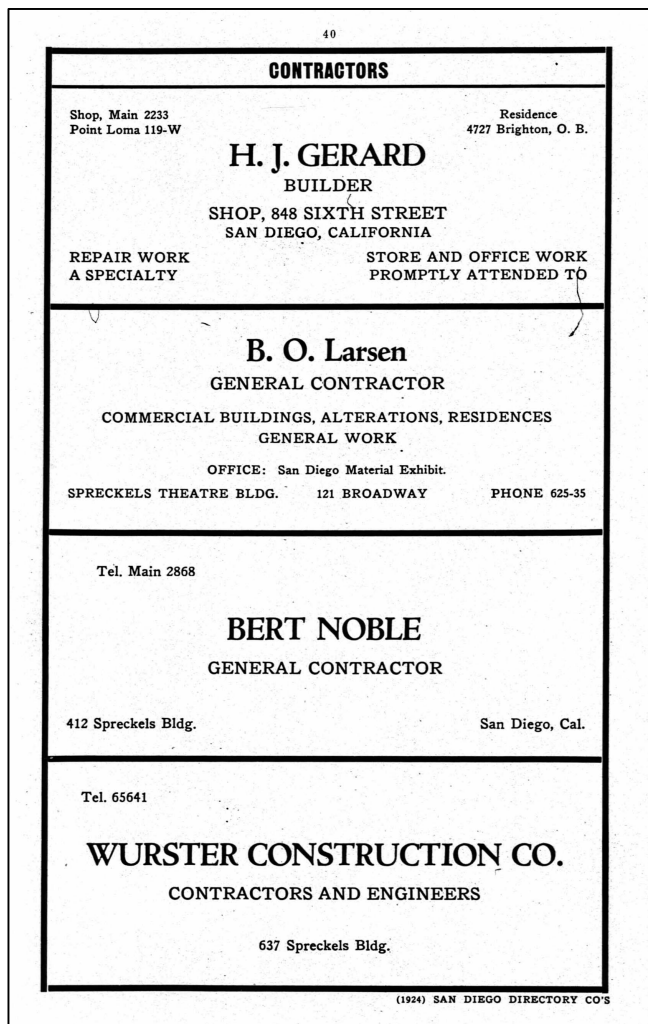
Bert Noble's general contractor listings and advertisements for the Noble Company continued in the Glendale city directory until 1936.

In 1937, Jack Noble (AKA Jack Donald Noble), the future owner of Noble Company appeared in the college yearbook with the



Jack Noble's 1937 college yearbook photo

⁴ The city directory was the predecessor to telephone directory and yellow pages. All major cities had a city directory usually published annually.



Bert Noble's advertisement in the 1924 San Diego city directory

1937 graduating class of University of California, Berkeley.

By 1940, both Bert Noble and son Jack with their families had moved to Oakland and were working in the general contracting business. Shortly thereafter, the company became more focused on designing and building concrete batching equipment, the

type commonly used to mix large volumes of concrete for road building.

During World War II, Noble Company joined the defense effort and fabricated parts for Navy ships. After the war, the company returned to its original business manufacturing concrete batching equipment, cranes and other construction equipment.

In 1944, their company name appeared before the Oakland City Council as "Noble Batchers Noble Company Oakland 1860 7th Street California". The company requested permission to build a rail track crossing across 7th Street and 5th Street between Cedar Street and Bay Street. The request was unanimously approved and this request is significant as it is the first appearance of the Noble Company's signature address for the future – 1860 7th Street, Oakland.

The term 'batcher' in the company name refers to mixing of concrete aggregate (batching). As evidence of this, Jack D. Noble filed his first patent application on 8 December 1945 for an "Aggregate Batcher by Weight." The final patent was granted on 17 April 1951 and can be recognized as a device frequently in use at concrete mixing plants. The patent also described the Noble Company as a partnership of Bert Noble and Jack D. Noble – father and son. Jack D. Noble filed two other patents in December 1959; both of which were for plate-lifting devices to be used with hoists.

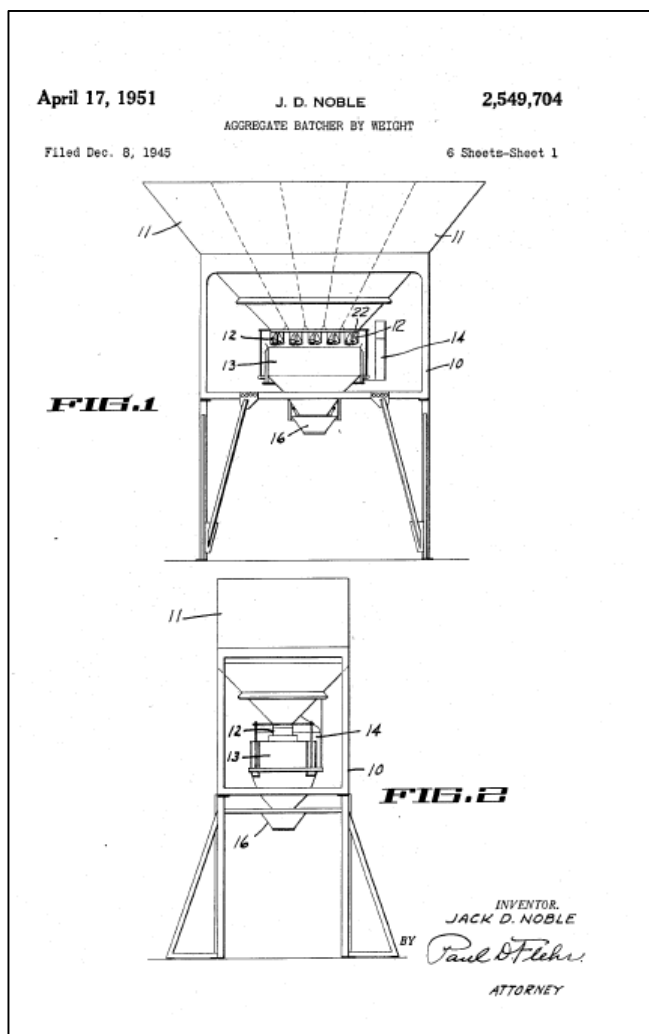


Diagram of the aggregate batcher patented by Jack D. Noble

Noble Company business must have been expanding because on 12 April 1946, Jack D. Noble and others, filed incorporation papers with the California Department of State. The "Noble Co." was issued corporation number 208744. On 1 August 1955, the Noble Co. filed another document that formally changed their corporate name to "Noble Company."

During the post-war building boom in the United States, the Noble Company was extremely busy manufacturing their patented concrete batching plants for road

building and hydroelectric dam construction sites all over the country. There is evidence that some of those batching plants are still in operation even though some of the mechanisms have been replaced with more modern computerized systems.

By the early 1950s, developments in rocketry led to a call for manufacturers who could fabricate the specialized equipment necessary for servicing the rockets. The Noble Company won several of these contract bids and company participation in Cape Canaveral operations has been documented earlier in this paper.



Company executives (l-r) Ed Rice, Wayne Bentley and Jack Noble in the Oakland office (Credit: Pete Noble)

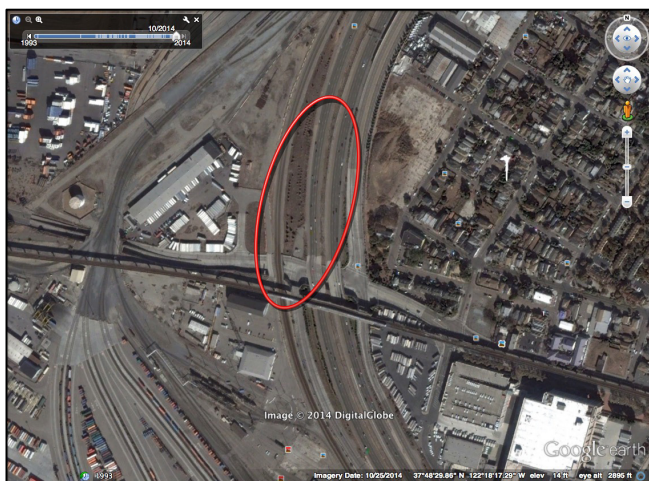
In addition to constructing cranes and gantries at the Cape, Noble continued to provide services into the 1960's as a sub-contractor to Pan American World Airways (PanAm), the primary service contractor for Cape Canaveral at the time.

In 1966, most of the Noble Company assets were sold to American Hoist and Derrick of St. Paul, Minnesota. After a while, the new

owners broke up the company into smaller businesses.



Former Noble Company buildings are marked in this 1993 Oakland aerial photo (Credit: Google Earth)



2014 aerial photo showing Interstate 880 passing through the former Noble Company property (Credit: Google Earth)

On 15 May 1967, Noble Company filed a certificate of election with the State of California to wind up and dissolve. The dissolution process was lengthy and the final certificate was issued on 28 July 1970 when the Noble Company officially dissolved.

As for the signature address 1860 7th Street, Oakland – that no longer exists. The physical location is now completely covered

by Interstate 880 (Nimitz Freeway) as it passes over 7th Street in Oakland.

It is worth mentioning that there was a request filed with the State of Kansas on 26 August 1954 in which the Noble Company of Oakland requested incorporation in Kansas. The request was not followed through and then dropped. The Kansas incorporation request declared the age of the company as 59 years and 8 months. That age coincides with the time when Robert J. Noble began advertising as an architect and builder in the 1894 Oakland city directory.



Jack Noble in his Oakland office (Credit: Pete Noble)

So what happened to Jack Noble? When the company dissolved in 1967, he was listed as the principal shareholder and trustee. The business must have done well because he was shown in 1967 as living in Incline

Village, Nevada – the north shore of Lake Tahoe. Not only did Jack and Helen live there, Jack and others formed a contracting partnership to build the condos in which they lived. After 1973, Jack and Helen

moved to Pebble Beach, California where they lived out their final years. Jack died on 25 February 1987 and Helen on 24 October 1997.

How about the other Noble Company?



The resemblance of an A-frame gantry to an oil-drilling derrick is striking. Seeing the “NOBLE” nameplate at the top of a structure resembling an oil derrick, one could find it an easy leap to assume that the famous Noble oil-drilling company manufactured the structure. Even the wording of the U.S. Army Corps of Engineers history “...modeled on the open-faced masts used in oil fields, the Redstone service tower was built by Noble Company...” suggests a link. Only by researching the history of these companies could one learn that the linkage of the Cape Canaveral

gantries with the oil drilling Noble Corporation (logo left) has no basis in fact.

The Noble Corporation in the oil-drilling industry has a distinguished and ongoing life in its field with roots going back to 1932 as the Samedan Oil Corporation of southern Oklahoma. The recognized founder of the company, Samuel Lloyd Noble (AKA Lloyd Noble) was born 30 November 1896 in Ardmore, Oklahoma and died 14 February 1950 in Houston, Texas. Lloyd Noble’s family roots go back through Noble families in New York and Massachusetts.

There is no evidence of a close relationship between the Noble families associated with the two companies. Both families are of Irish ancestry so there may be a distant link, but that link is not evident on this side of the Atlantic Ocean. What we have seen is evidence of significant entrepreneurial spirit in two branches of the Noble family.

Compiled for the Air Force Space & Missile Museum by:

James E. Hale Jr., Merritt Island, Florida

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rev 1.5.2

Source material:

1. *California, Secretary of State, Business Programs Division, Business Entities Section, articles of incorporation of Noble Co., corporation number 208744, 13 August 1946*
2. *Patrick AFB, Florida, Office of the Historian, 45th Space Wing, Chronology of Atlantic Missile Range and Air Force Missile Test Center, 1938-1959*
3. *Online Etymology Dictionary, www.etymonline.com, accessed 31 October 2014*
4. *United States Department of the Interior, National Park Service, National Register of Historic Places, Cape Canaveral Air Force Station, revised 1 September 1983*
5. *Ancestry.com, online research records accessed April-November 2014, U.S. Federal Census Schedules for 1900-1940; Social Security Death Index, California Death Index, World War I Draft Registration Records, World War II Draft Registration Records, San Francisco California city directories, San Diego California city directories, Glendale California city directories*
6. *Google Patents, www.google.com/patents, accessed 30 October 2014*
7. *Bizapedia, Kansas for-profit corporations, <http://www.bizapedia.com/business-services.aspx>, accessed 9 April 2014*
8. *Air Force Space and Missile Museum, archive library, blueprints and documents for Cape Canaveral Air Force Station*
9. *Technical Manual, Portable Guided Missile Service Structure for Army Ballistic Missile Laboratory, published by Noble Company*

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