

The Manned Spacecraft Center, Houston, after completion.

## The Politics of Space: NASA's Decision to Locate the Manned Spacecraft Center in Houston

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NASA's decision to establish the Manned Spacecraft Center (MSC) in Houston is sometimes regarded as a non-political one. Houston, goes the argument, possessed certain locational features — deep water facilities, educational institutions, an extensive industrial plant, and a technologically competent work force — which made it attractive to NASA. It is argued further that these locational advantages were more important than the political-economic relationships which may have swayed NASA's decision.<sup>1</sup> James Webb himself, NASA's Administrator from 1961 to 1968, has minimized the booster role played by Houston's business community:

*I think it is also important to say that the NASA selection of Houston for the location of the Manned Spacecraft Center (now the Lyndon B. Johnson Space Lab) was based on a careful study of the agency's needs. . . . The decision was not based on political considerations or on the activities of the local business community, but on NASA's requirements.<sup>2</sup>*

Although locational considerations and NASA's requirements were important, one must also examine the political landscape on which NASA made its policy. Such an examination will reveal the degree to which political and economic forces influenced the space agency's decision to award the MSC to Houston.

### *James Webb and the National Aeronautics and Space Administration*

James Webb was a central figure in the MSC decision, a fixture on the political landscape which affected NASA's final choice. Webb assumed

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<sup>1</sup>Stephen Oates, "NASA's Manned Spacecraft Center at Houston, Texas," *Southwestern Historical Quarterly* 67 (January 1964): 355; Loyd Swenson, Jr., "The Fertile Crescent: The South's Role in the National Space Program" *Southwestern Historical Quarterly* 71 (January 1968): 380-381; *Houston Magazine* 33 (September 1962): 30-37.

<sup>2</sup>Webb to author, September 23, 1980, personal letter.

leadership of the space agency in 1961, at a time when many politicians, even President Kennedy himself, doubted the usefulness of a massively financed space program. Indeed, in early 1961 the Kennedy Administration had few plans for expanding NASA's facilities, certainly none for a Manned Spacecraft Center. But Webb, along with Vice President Lyndon Johnson, quickly began to increase NASA's profile in national politics.

Born in North Carolina in 1906, Webb later developed strong business connections to the South and Southwest. In the early 1940s, he served as vice president of the Sperry Gyroscope Company and from 1953 to 1958 he was president of Republic Supply Company, a subsidiary of the Kerr-McGee Oil Industry and a manufacturer of oil drilling equipment. During the latter period, he also was the director of the Petroleum Equipment Suppliers Association, headquartered in Houston, Texas. A resident of Oklahoma City from 1953 to 1959, he held memberships on various local boards, including those of the Fidelity National Bank and Trust Company (1957-1959) and the Oklahoma City Chamber of Commerce (1954-1959). At the time of his appointment, he was a director and assistant to the president of Kerr-McGee and was a director of McDonnell Aircraft Corporation. He was also President and Trustee of Educational Services, Incorporated, a non-profit corporation which advised high schools about the improvements in their science programs.<sup>3</sup>

No stranger to Washington politics, Webb also had acquired considerable experience in the public sector. Arriving in the capital in 1932, he worked for two years as an aide to Congressman Edward Pou of North Carolina. While earning his law degree from George Washington University (1934-1936), he worked in the law offices of former North Carolina Governor O. Max Gardner, who at the time was a lobbyist for the Aeronautical Chamber of Commerce of America. After World War II, Webb again assisted Gardner, on the Control Board of the Office of Mobilization and Re-conversion and as a member of Gardner's law firm. When Gardner became Undersecretary of the Treasury in 1946, Webb joined him as an executive assistant. Late that same year, Webb became President Truman's Budget Director, and from 1949 to 1952 he served as Undersecretary of State.<sup>4</sup> In all of his posts, Webb distinguished himself as an especially effective administrator, a charismatic individual who could encourage "large organizations to run smoothly and avoid administrative conflict."<sup>5</sup>

Both Webb's administrative reputation and his business connections brought him to Lyndon Johnson's and President Kennedy's attention. Johnson, who had won the President-elect's permission to decide the NASA

appointment, suspected that a scientist/administrator would confine the agency to scientific research and would ignore the diplomatic, military, and economic viewpoints which Johnson believed should be incorporated into the space effort. Senator Robert Kerr suggested Webb's name, arguing that Webb could provide the kind of space program the Vice President wanted. Kerr, the founder of Kerr-McGee, had been elected to the Senate in 1948, the same year as Johnson, and had succeeded the Texan as chairperson of the Senate Aeronautics and Space Committee. Kerr persuasively lauded Webb's administrative talent, a criterion that was extremely important in Johnson's mind, and the Vice President ultimately settled on Webb for the NASA post.<sup>6</sup>

Webb, however, was a reluctant appointee. Protesting that he "hadn't even seen a rocket fly," he indicated that NASA "would be better served by a scientist or engineer," or "someone with higher technical qualifications."<sup>7</sup> President Kennedy, however, countered, "That's not why I want you. I want you because there are policy issues related to the opening of space — national and international policies — and that's why I want you."<sup>8</sup> Johnson was equally insistent that Webb accept the appointment because "he had a suitable combination of government experience, executive ability and respect of Congress."<sup>9</sup> Suitably convinced, Webb finally agreed to accept the post, and the Senate confirmed him in February 1961.<sup>10</sup>

A resourceful and wily public entrepreneur, Webb's administrative style made him amenable to the interests of urban boosters, corporate executives, academic researchers, and politicians at all levels of government. Determined to strengthen his agency by striking alliances with businessmen, scientists, and politicians, Webb became particularly accessible to forceful coalitions organized outside the NASA establishment, including those dominated by city promoters. Faced with the need to sow goodwill among Washington's politicians, the Administrator was tossed into political furrows plowed by promoters in the urban hinterland.

Webb, however, could not ignore the obligations engendered by external support, whether it came from Congress, the private sector, academia, or southwestern cities. If space scientists, local businessmen, or Washington's politicians backed his programs, he at least had to consider their pleas and remain open to their supplications for such benefits as NASA could disperse.

<sup>6</sup>Ibid, 190-192; Rowland Evans and Robert Novak, *Lyndon B. Johnson: The Exercise of Power* (New York, 1966), 337; Robert Rosholt, *An Administrative History of NASA* (Washington, D.C., 1966), 187.

<sup>7</sup>Interview with James Webb by author, Washington, D.C., September 15, 1981; Webb to Samuel Hillman, February 15, 1961, Webb Papers; Webb to Robert Simons, February 15, 1961, Webb Papers.

<sup>8</sup>Interview with James Webb by author.

<sup>9</sup>Lyndon Baines Johnson, *The Vantage Point* (New York, 1971), 279.

<sup>10</sup>Knowing that the Vice President had a keen interest in space policy, Webb suspected that Johnson might interfere in the management of NASA. Before Webb accepted the post, therefore, he obtained the assurances from both Johnson and Kennedy that he "was a presidential appointee reporting directly to the President." Interview with James Webb by author.

<sup>3</sup>Statement by James Edwin Webb before the Senate Aeronautical and Space Science Committee, February 2, 1961, James E. Webb Papers, Congressional Hearings File, The Harry S. Truman Presidential Library, Independence, MO; Jay Holmes, *America on the Moon: The Enterprise of the Sixties* (New York, 1962), 190-192.

<sup>4</sup>"Statement by James Edwin Webb," February 2, 1961, Webb Papers.

<sup>5</sup>Holmes, *America on the Moon*, 191.



Caught in the crossfire of sharply aimed appeals, Webb had to determine who would and would not receive a NASA contract, facility, or program. These pressures were especially vexing when the Administrator presided over the agency's decision on the MSC site, in which he had to fend off appeals from a wide array of businessmen, city promoters, and politicians.

*Aerospace Boosterism: Political and Business Relationships*

Intrigue pervaded the MSC site decision, dotting the political landscape with an interesting melange of coalitions involving Webb, Washington politicians, and corporate executives. A key participant was Albert Thomas, one of Houston's two U.S. Representatives and chairperson of the House Independent Offices Appropriations Subcommittee, the body responsible for approving NASA appropriations. Though self-described as being "just the water boy" in MSC site arrangement,<sup>11</sup> Thomas cryptically had promised a more assertive responsibility in June 1961, just about the time his committee was handling the President's request for increased NASA funding. On June 12, Thomas stated, "The key to the selection [of the MSC site] seems to lie in Congressional approval of the vastly increased budget for Space asked by this administration."<sup>12</sup>

The congressman's message was not lost in the White House, nor in NASA, where Webb had to be concerned about the pressure the crusty Houston representative could apply. Throughout 1958, Thomas had exerted extraordinary force on Administrator T. Keith Glennan to locate the Goddard Space Flight Center in Houston. When NASA decided on a site in Beltsville, Maryland, Thomas became so incensed that he telephoned Glennan and threatened to curtail the agency's appropriations. According to Glennan, Thomas called to inquire about possibly locating some space facility in Houston. When the Administrator tried to stall, the congressman interrupted, exclaiming, "Now, look here, Doctor! Let's cut out the bull! Your budget calls for \$14 million for Beltsville, and I am telling you that you won't get a goddamned cent of it unless that laboratory is moved to Houston!" Retaining his composure, Glennan responded, "Albert, I think it's about time I bought you a drink."<sup>13</sup> Although Thomas did not deprive NASA of funding, he subsequently became a bit tight-fisted in appropriating money for the space agency.<sup>14</sup>

Mindful of this previous snub of Houston, Thomas asserted on June 12:

I have been interested in getting scientific facilities like these in Houston

<sup>11</sup>Houston Post, September 24, 1961.

<sup>12</sup>Ibid., June 13, 1961.

<sup>13</sup>T. Keith Glennan, Diary, *The First Years of the National Aeronautics and Space Administration* (Cleveland: typescript, 1964, on file at the Dwight David Eisenhower Presidential Library, Abilene, KS), 20.

<sup>14</sup>Rosholt, *An Administrative History of NASA*, 79-81; Eugene Emme to author, December 28, 1980, personal letter; Ken Hechler, *Toward the Endless Frontier* (Washington, D.C., 1980), 186.

for several years. If lightning strikes our road, this could involve the expenditure of millions in Houston and the direct employment of several thousands of people. . . . We got passed up in the first go-round on this program, and I don't intend to see Houston get passed by again unless it is impossible to prevent.<sup>15</sup>

Thomas may have regarded himself as a simple delegate, looking out for the interests of his constituents, but Webb could afford to ignore his warnings only at great peril.

Lyndon Johnson also was deeply involved in the politics of site selection because he still considered himself responsible for patronage matters relevant to his state.<sup>16</sup> All of Texas, not just Houston, would benefit from the selection of Houston, because firms in outlying communities like Corpus Christi, Bryan, or Beaumont would receive prime contracts and subcontracts from NASA, and a space effort centered at Houston would create a vast array of spinoffs for which Johnson wanted the credit.

Johnson did not accidentally become interested in the Space Program. As a senator, he had chaired the Senate Space Committee and was an architect of the 1958 Space Act. Even before President-elect Kennedy assumed office, Johnson had placed himself in a position where he could shape space policy and determine the direction of any procurement benefits it might produce.<sup>17</sup> In December 1960, the Vice President-elect prevailed upon Kennedy to approve a slight change in the Space Act, which at the time designated the President as the chairperson of the National Aeronautics and Space Council (NASC). Johnson wanted to chair the NASC, and in April 1961, he maneuvered through Congress an amendment specifying the Vice President as that body's chairperson. The NASC was central to the formation of space policy, its purpose being to "advise the President in the planning, development and coordination of a comprehensive national space program."<sup>18</sup>

As chairperson of the Space Council, Johnson was well-placed to coordinate site selection for the MSC. Said to have argued "persuasively . . . on behalf of Houston's advantages,"<sup>19</sup> he operated as liaison among Thomas, NASA's site Survey Team, President Kennedy, Houston businessman George Brown, and diverse Houston boosters. As a close associate of Thomas, Brown, and Webb, he opened the political process to them in a fashion impossible for others to emulate, including President Kennedy's compadres from Massachusetts.

<sup>15</sup>Houston Post, June 13, 1961.

<sup>16</sup>Webb to author, April 23, 1981, personal letter.

<sup>17</sup>Evans and Novak, *Lyndon B. Johnson*, 204-209; Johnson, *The Vantage Point*, 271-278.

<sup>18</sup>"National Aeronautics and Space Council During the Tenure of Lyndon Johnson as Vice President and During His Tenure as President (January 1961 - January 1969)," (Washington, D.C.: mimeo, 1969). The Lyndon B. Johnson Presidential Library, Austin, TX. See also: Evans and Novak, *Lyndon B. Johnson*, 327-329; Johnson, *The Vantage Point*, 278-279; Merle Miller, *Lyndon: An Oral Biography* (New York, 1980), 277; John Logsdon, *The Decision to Go to the Moon* (Chicago, 1970), 109-121; and Rosholt, *An Administrative History of NASA*, 13, 305-308.

<sup>19</sup>Houston Post, September 29, 1961.

Lyndon Johnson was Houston's power broker, and his influence was hardly benign.<sup>20</sup>

Although Houston's Washington friends, including Webb, Johnson, and Thomas, were important,<sup>21</sup> Houston had some extremely significant local promoters. Among the latter looms the persona of George Brown. In the 1920s, Brown, his brother Herman, and Herman's brother-in-law Dan Root formed the construction company "Brown and Root." During the Depression, their venture would have failed had it not been for their lawyer Alvin Wirtz. Wirtz obtained a large contract for the company to do work in one Texas county with equipment the lawyer had temporarily borrowed from another Texas county. Though a purely illegal arrangement, Wirtz and the contract restored the Browns' business.<sup>22</sup>

The lawyer later operated as liaison between the Browns and Congressman Lyndon Johnson. In 1937 Johnson worked with Wirtz to see that the Browns received a contract to complete the Mansfield Dam on the Lower Colorado River, and in 1941 Wirtz and Johnson persuaded the Brown brothers to help fund the congressman's campaign in a special election for the U.S. Senate. Johnson's try for the Senate failed, and his effort cost the Browns a considerable sum. Brown and Root had illegally donated company monies to the campaign, a transgression for which the company was fined \$327,000.<sup>23</sup> Regarded as Johnson's political godfather, Wirtz often bailed Johnson and Brown out of trouble. In 1944, for instance, the lawyer persuaded President Roosevelt to call off an Internal Revenue investigation of Brown and Root's financial involvement with Lyndon Johnson.<sup>24</sup>

In the years that followed, George Brown remained close to Lyndon Johnson. D. B. Hardeman, an aide to Sam Rayburn and a friend of Johnson's, has described the relationship between Johnson and Brown's company:

Lyndon helped them [the Brown Brothers] and they helped him through the years. . . . I've always heard that Brown and Root were very competent contractors. They could really get it done. In these things somebody is going to get the contract, so you try to get it for your friends.<sup>25</sup>

So it was with Johnson and the Brown brothers. Following the unsuccessful

<sup>20</sup>The specifics of Johnson's role remain relatively obscure: As of this writing, his Vice Presidential papers are not open, and although George Brown's correspondence with Johnson may reveal much, these materials, along with a Brown interview, will not become available until Brown's death.

<sup>21</sup>U.S. Representatives Olin Teague (Bryan-College State, Texas) and Robert Casey (Houston) were members of the House Space Committee. The MSC was built in Casey's district, but Thomas was much more influential in the site selection process. In fact, when President Kennedy toured the site in 1962, Thomas—and not Casey—was invited to participate in the tour.

<sup>22</sup>Miller, *Lyndon*, 114.

<sup>23</sup>*Ibid.*, 115-116; Evans and Novak, *Lyndon B. Johnson*, 27.

<sup>24</sup>Robert Caro, "The Years of Lyndon Johnson," *The Atlantic Monthly* (October 1981): 44.

<sup>25</sup>Miller, *Lyndon*, 115.



The decision-makers: (left to right) Congressman Bob Casey, Albert Thomas, George Brown, and Lyndon Johnson at a 1961 banquet.

1941 Senate campaign, Representative Johnson successfully won a contract for Brown and Root to help build a Naval Training camp in Corpus Christi. The Browns earned \$33 million on this deal and used their profits to capitalize the Brown Shipbuilding Company, which produced destroyer escorts for the Navy.<sup>26</sup>

Throughout the 1950s and 1960s, the Browns enjoyed a network of contacts with other Texas politicians. Albert Thomas, for instance, was reputed to have held his position at their sufferance. Also, as Secretary of the Navy, John Connally repeatedly came to the Browns' defense when the GAO charged Brown and Root with upwardly revising the company's cost estimates on government projects.<sup>27</sup> Lyndon Johnson, however, operated at the center of the Brown network, procuring the company contracts to build military bases in Spain, Guam, and Viet Nam.<sup>28</sup>

In April 1961, Johnson invited George Brown into the process of making space policy. As chairman of the Space Council, he appointed Brown as a civilian member of that body because he was "a distinguished American from the private sector" and was reputed to be among "those responsible members of the public" whose advice was needed on national space policy.<sup>29</sup> In this capacity Brown was "an active consultant" to the Vice President in the preparation of the space program.

#### *Aerospace Boosterism: The Rice Connection*

As chairperson of Rice University's Board of Trustees, George Brown was the center of the "Rice Connection" with NASA. Sometime in 1961, Morgan Davis, president of Humble Oil and Refining, detached two tracts from the company's Clear Lake Ranch and donated the properties to Rice University, with the proviso that Rice in turn would offer the land to NASA as a site for the MSC. Humble specified that although the university could sell the smaller tract of 600 acres to the Federal government, it had to donate the larger 1000 acre property to the government. Located 22 miles southeast of Houston, both tracts were sparsely populated, having been set aside for Humble Oil exploration. Rice later received \$1,400,000 for the 600 acres and gave the 1000 acres to NASA. Thus, the Federal government paid \$875 per acre for property valued at the time at \$3,500 per acre.<sup>30</sup> Humble's donation did not come from concern for the public interest or civic pride. The company had long been planning to develop part of its Clear Lake holdings into an industrial park,

<sup>26</sup>*Ibid.*

<sup>27</sup>*Ibid.*, 460-461.

<sup>28</sup>*Ibid.*, 461.

<sup>29</sup>Johnson, *The Vantage Point*, 280; Edward C. Welsh, "Interview for the Lyndon B. Johnson Oral History Project," T.B. Baker, interviewer, Johnson Library.

<sup>30</sup>Houston *Post*, September 20, 1961; "A Brief History of the Manned Spacecraft Center," NASA publication 660401 (Washington: n.d.), Part of Houston Collection, Houston Metropolitan Research Center, Houston Public Library, Houston, Texas.

and the presence of the MSC certainly spurred these plans.<sup>31</sup>

The Rice site was also an old element in Houston's battle to obtain NASA facilities. In 1958, when Albert Thomas tried to pressure Administrator T. Keith Glennan into putting a research installation in Houston, the congressman had in mind a location at Rice University, mentioning to the Administrator that Rice would be "quite willing to give NASA 1000 acres of land about 30 miles from Houston."<sup>32</sup> Spurned at that time, the Houston politician bided his time until the NASA chief resigned in 1960. When James Webb succeeded Glennan, Rice alumnus Thomas solicited the support of George Brown, his old college roommate, in a second attempt to bring a NASA facility to Thomas's alma mater. Brown proved an excellent ally for Thomas and supplied crucial help in the site selection process.<sup>33</sup>

Despite the historical precedent for the Clear Lake site, it is not precisely clear when Humble extended the offer to NASA. As early as February 1961, it has been alleged, Thomas, Webb and Johnson met in Thomas's Washington home to discuss the possibility of building some NASA facility in Houston. Webb, however, has denied that such a discussion ever occurred, even though he might have met with Johnson and Thomas on a similar, albeit social, occasion.<sup>34</sup> Thus, it is not clear whether Thomas, Johnson, and Webb had discussed the Rice location so early in the Kennedy Administration, but one fact is certain. In May 1961, Webb, Johnson, George Brown, and Albert Thomas were seriously considering Rice as a site for a major NASA facility. In a "Memorandum for the Vice President" dated May 23, 1961, Webb relayed the following information:

In preparing for the hearings on the original Kennedy submission before the House Appropriations Committee, and in other discussions with Congressman Thomas, he has made it very clear that he and George Brown were extremely interested in having Rice University make a real contribution to the effort, particularly in view of the fact that the resources of Rice had increased substantially and that some 3800 acres of land had been set aside by Rice for an important research installation. On investigation, I find that we are going to have to establish some place where we can do the technology related to the Apollo program, and this should be on the water where the vehicles can ultimately be barged to the launching site. Therefore, we have looked carefully at the situation at Rice, and at the possible location near the Houston Ship Canal or other accessible water ways in that general area. George Brown has been helpful in this.<sup>35</sup>

<sup>31</sup>"Bayport Expands Industrial Complex," *Houston Magazine* 85 (March 1964): 23.

<sup>32</sup>Glennan Diary, 19.

<sup>33</sup>Hechler, *Toward the Endless Frontier*, 186-187.

<sup>34</sup>Robert Sherrod Files, Memo to Eugene Emme, 5 May 1971, NASA Historical Archives, NASA History Office, Washington, DC.

<sup>35</sup>Webb, "Memorandum for the Vice President," May 23, 1961, Webb Papers.

Although Webb carefully adds that "no commitments whatever have been made," he does imply that the Humble/Rice offer had been tendered and that NASA was considering a Houston site for what later would become the MSC. First, he notes that the "resources of Rice had increased substantially," probably a reference to the Humble land donation. He also notes that Rice was setting aside a substantial portion of its land for an "important research installation." Finally, he alludes to the possibility that a NASA facility at Rice (or anywhere in the Houston area, for that matter) could "do the technology related to the Apollo program," later an important function of the MSC. And of course, he mentions George Brown and Albert Thomas as key participants in these matters.

The date of the May 23 memorandum also is intriguing. Webb wrote it two days before Kennedy publicly announced the specific details in his plan to increase NASA's budget by \$549 million and long before a NASA site selection team had been assembled to determine the site "according to a careful study of the agency's needs." Although the likelihood of a massive addition to NASA's budget had been public knowledge since early May, only a few individuals were aware of the specific details. George Brown was one. As a member of the Space Council, he was privy to official information which Representative Thomas and Administrator Webb could supply — for instance, a \$60 million line item for the MSC. Thus apprised of Kennedy's detailed recommendations, the Rice Connection — Brown, Thomas, and Davis — was able to advance its proposals well before other communities were able to organize theirs.

Throughout June, Webb and George Brown corresponded often. Early in the month, the NASA Administrator and his family visited Mr. and Mrs. Brown in their home.<sup>36</sup> On June 20, Brown wrote Webb, "We are waiting for a word from you as to our next move."<sup>37</sup> The Rice Connection was in full gear, long in advance of competing communities which were only beginning to organize their booster efforts.

Humble's link with the NASA/Rice deal also is interesting. Webb had wanted to mobilize the powerful oil lobby behind NASA's programs, a desire stemming from his previous affiliation with Kerr-McGee. In a June 16, 1961 memorandum to Albert Siefert, NASA's Director of Administration, Webb expressed some perplexity at finding a way to induce oil companies to support NASA's efforts:

If . . . a thoroughgoing technical activity oriented toward the engineering and technological problems, and perhaps associated with our new manned flight center, could be initiated in the Houston area, then the activity at the center and at the universities could complement each other and add to the whole development of the Southwest for purposes of supporting our program. This might also bring into being strong support

<sup>36</sup>Webb to Brown, June 15, 1961, Webb Papers.

<sup>37</sup>Brown to Webb, June 20, 1961, Webb Papers.

from one of our largest industries — the oil industry. I have a feeling this industry has more to contribute to our effort than it has yet demonstrated, and I think we might get some very real results if we could find a way to generate this interest in a practical manner.<sup>38</sup>

Thus, Webb connects "some technological activity oriented toward engineering and technological problems . . . in the Houston area" (the MSC) with a desire to generate interest among oil companies "in a practical manner." Similarly, in December 1961, he wrote George Brown and expressed pleasure at NASA's involvement in Houston:

I believe the buildup at Rice, particularly in conjunction with our NASA activities there, can help lay a groundwork for technical strength. That will mean a great deal to that whole area of the country. Also, I am particularly interested that this be accomplished in such a way as to bring the strength of the oil industry to the support of our space program in the technical, scientific, and other fields where we can benefit from their vast experience, know-how, and competence.<sup>39</sup>

Webb referred to the oil industry as an ally, and although he specifically cited technological and scientific assistance, he was mindful of "other fields" of help, quite possibly including the oil lobby's political wallop. Humble's offer brought an oil company close to NASA, an important objective from Webb's perspective.

Although Webb may not have involved himself in Humble's offer, George Brown probably did. Reputed to be the most powerful businessman in Texas, Brown had strong connections within the oil industry. Shortly after World War II, he and two business associates, Gus Wortham and Charles Francis, bought the Big and Little Inch pipelines from the Federal government and created the Texas Eastern Corporation. And in 1962, Brown sold Brown and Root to the Halliburton Company for \$37 million and a seat on Halliburton's Board of Directors, a merger which formed the nation's largest manufacturer and supplier of oil well equipment.<sup>40</sup> Yes, Brown had friends within the oil industry, and as chairman of Rice's Board of Trustees, he was in a strong position to encourage Humble's cooperation with Rice and NASA.

The introduction of Rice University as a site also supplied a scientific element to the Rice Connection. Had Houston's entrepreneurs promoted their city purely from a business standpoint, their efforts would not have looked nearly as attractive to Webb. The Administrator, of course, wanted to foment goodwill among scientists and universities, a desire articulated on August 4, 1961 in a memorandum to Hugh Dryden: "The whole area of developing university relationships is of very vital importance to our future,

<sup>38</sup>Webb, "Memorandum for Mr. Siefert," June 16, 1961, Webb Papers.

<sup>39</sup>Webb to Brown, December 26, 1961, Webb Papers.

<sup>40</sup>Harry Hurt III, "The Most Powerful Texans," *Texas Monthly* (April 1976): 73-76, 107.

particularly the development of some centers capable of greater efforts in the space field."<sup>41</sup> In other words, Webb believed that NASA facilities should be located near major universities, as a means of establishing stronger relationships between his agency and the academic and scientific communities. Thus, he recently reflected:

We wanted to have the university people involved. Everywhere we had a center we wanted a university complex, such as Goddard and the University of Maryland, Case Western and Lewis, Stanford and Berkeley at Ames, the University of Houston and Rice at Houston, a whole complex of universities rolled up in Florida. We fostered that! We wanted the engineers and the out-in-front researchers to have close associations with the universities, and we wanted the university professors to be dedicated to advancing the cutting edge of knowledge. So what we did in Houston was no different, except that they offered this 1000 acres of land, which was an important part of the deal.<sup>42</sup>

The prospect of a Rice site for the MSC seemed even more attractive as the time neared for a decision. Webb implied as much to Hugh Dryden when he referred to a pending conference with Rice Chancellor Carey Croneis "to talk over what Rice can contribute to this program."<sup>43</sup> He continued:

I believe we already have an active program [there] and I have been told that the new president Dr. Pitzer, is quite an outstanding man around which a real effort could be built. I would like to have such information about Rice as will be helpful in conducting the above conference and endeavoring to develop the most constructive lines of interest for the Agency at Rice.<sup>44</sup>

From Webb's perspective, then, Rice's interest in helping NASA clearly made Houston a superior location for the MSC.

The Rice Connection's participation in Houston's booster campaign proved effective on August 24, 1961, the day NASA's Site Survey Team came to the Bayou City. The team had to determine how well Houston fitted NASA's basic requirements. "Essential Criteria" for the MSC were quite specific: a water and air transportation network; a highly developed telephone system; a "well-established industrial complex;" a supply of construction contractors and craftsmen; a provision of recreational facilities; a complex of universities; an adequate supply of drinking water; a mild climate; and, interestingly enough, "1000 usable acres with a suitable adjacent area for further development."<sup>45</sup>

<sup>41</sup>Webb, "Memorandum for Hugh Dryden," August 4, 1961, Webb Papers.

<sup>42</sup>Interview with James Webb by author.

<sup>43</sup>Webb, "Memorandum for Hugh Dryden," August 4, 1961, Webb Papers.

<sup>44</sup>*Ibid.*

<sup>45</sup>N. Phillip Miller, Secretary, Site Survey Team, "Memorandum for the Administrator," June 13, 1961, Webb Papers.

Meeting with the Site Survey Team in Mayor Lewis Cutrer's chambers, Rice President Pitzer and various business and labor representatives formally presented the Humble/Rice "bait." Soon afterward the announcement came that "Rice University was the leading site" for the MSC.<sup>46</sup> When NASA finally chose Houston as the MSC site, Pitzer made public the Humble/Rice agreement, thus further intimating Rice's close involvement in the politics of selecting the MSC site.<sup>47</sup>

Pitzer applied a message articulated by Webb two years earlier in a Jackson, Mississippi speech: "The marriage of our business leaders with our scholars and researchers offers the brightest hope."<sup>48</sup> In this particular instance, "hope" referred to hope for an expanded space program, and Pitzer did his part by fostering business participation in university programs involving NASA. In January 1962, Webb warmly complimented the Rice president for his effort to unite business with academia:

I must say that I am more and more in the frame of mind to participate in the creation of several pilot models of how leaders in a local area or region can use the benefits of modern science and technology, particularly in close association with educational institutions, to solve the problems that are immediately in front of them and which are of immediate effect on their living and working conditions. . . . Anything you can do to interest the business community in Houston to participate with you in such an endeavor will, in my opinion, pay great dividends to that region. This is stimulated in part by your suggestion that one of the banks is interested in participating with you.<sup>49</sup>

A year later, Webb again wrote Pitzer to congratulate him for making a speech in which the Rice president argued, "Universities must not simply follow NASA or any other governmental policy, but must help create policy by a continual stream of proposals and suggestions full of new and differing ideas."<sup>50</sup> But Webb also elaborated, "I think it most important to recognize that most Federal programs can be guided by local actions if the local people will take the action."<sup>51</sup> In Webb's view, Pitzer, along with Brown, Davis, Thomas, and other Houston boosters, had provided a valuable service, namely, guidance and support that could only strengthen the space program.

#### *The Decision*

On September 19, 1961, NASA announced the selection of Houston as the

<sup>46</sup>Houston Post, August 25, 1961.

<sup>47</sup>*Ibid.*, September 20, 1961.

<sup>48</sup>"The Challenge of Economic Growth for Mississippi," Speech delivered at First Federal of Jackson Foundation Awards Ceremony, Jackson, Mississippi, January 30, 1959, Webb Papers, Speech File, 2-3.

<sup>49</sup>Webb to Pitzer, January 5, 1962, Webb Papers.

<sup>50</sup>Webb to Pitzer, April 10, 1963, Webb Papers.

<sup>51</sup>*Ibid.*

location for the MSC, whereupon the Houston Chamber of Commerce acted quickly to make certain that the agency would not renege on its commitment. That very day, Chamber of Commerce officials air-expressed "Houston literature" to Langley Field, Virginia, then serving as NASA's field headquarters, and set up a Houston information office "for the benefit of NASA personnel who might be transferred."<sup>52</sup> Former Chamber of Commerce Executive Vice President Marvin Hurley recalled, "We arranged with the newspapers to send several copies of each edition to this information office, and wired NASA Administrator James Webb, offering the facilities and services of the Chamber of Commerce in connection with the move from Langley Field to Houston."<sup>53</sup> During the following months, the Chamber dispatched representatives to Virginia to make arrangements with NASA concerning office space, housing, personnel, and other necessities required to facilitate the move and to "launch Houston into the Space Program."<sup>54</sup>

NASA's decision did arouse some protests, especially among New Englanders who believed President Kennedy had spurned his native region in favor of political expediency. Massachusetts Governor John Volpe, in particular, charged that the President had submitted to political pressures by not considering Massachusetts as a possible site for the MSC. In early September, 1961, Volpe publicly stated his concern that "tremendous political pressures in Texas and California" were swaying the selection process, and in a September 12 telephone conversation with Webb, he asserted, "I do not think this is the way decisions ought to be made, and I am going to continue to say this if necessary." Webb replied, "Well, Governor, the record of political pressures coming from Massachusetts would not make too good reading, either. Although I do not expect to bring this out, they have been considerable."<sup>55</sup>

Throughout the fall of 1961, Webb remained sensitive about the politics of the Houston selection. In October, he visited New York and was again faced with criticism that the Houston choice had been made for political reasons. Upon his return to Washington, he immediately asked Johnson and Pitzer to alleviate these charges by "spelling out the Space Program and the relationship between Rice and the NASA effort."<sup>56</sup>

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Was NASA's selection of Houston a political choice, one based on the connections and pressures forced by Houston's businessmen and politicians? The needs of Webb's agency practically dictated that political/economic factors would impinge on the decision. Webb was the administrator of a

<sup>52</sup>Marvin Hurley, *Decisive Years for Houston* (Houston: 1966), 207-208.

<sup>53</sup>*Ibid.*

<sup>54</sup>*Ibid.*

<sup>55</sup>Webb, "Memorandum of a Telephone Conversation," September 12, 1961, Webb Papers.

<sup>56</sup>Webb to Carey Cronis, October 11, 1961, Webb Papers.

fledgling agency whose rather expensive programs were opposed by President Kennedy's science advisor and budget director and given only lukewarm consideration by the President himself. A skilled veteran of bureaucratic politics, Webb struck alliances with individuals and interests outside his agency to mobilize support for an expanded NASA program. This drive placed him and his agency in a situation that was effectively exploited by Houston's promoters.

Webb, for instance, needed Lyndon Johnson's expertise on space policy, the Vice President's intense desire to improve the nation's space effort, and Johnson's persuasive skills to swing the President behind the program. During the early months of 1961, Webb and Johnson were in close contact, communicating with each other as often as twenty times a week.<sup>57</sup> In return for Johnson's support, Webb publicly praised the Vice President for his work on behalf of the space program, massaging his ego and allowing him to take credit for gains made in space policy, specifically those that benefited Texas.<sup>58</sup>

Webb also required considerable congressional support, meaning the allegiance of Albert Thomas, upon whose favor NASA's appropriations depended. Indeed, Webb, Johnson, and Kennedy could not have pursued the massive increases in the space program unless Thomas had been brought into the fold. The crusty congressman would have opposed the program publicly if his concurrence had not been won by Johnson and Webb, and the price for this concurrence was some "scientific facility" for his district.

Houston entrepreneurs also formed a portion of Webb's clientele. George Brown, in particular, supplied support from the private sector. So did Morgan Davis, whose Humble Oil Company became an ally of NASA, one particularly coveted by its Administrator.

Brown and Davis stood to profit from a favorable decision. In fact, once NASA chose Houston, several interesting incidents immediately followed. In December, 1961, Brown and Root received the \$1.5 million contract for architectural design work on the MSC.<sup>59</sup> In 1962, Rice in turn received \$192,000 from the Federal government in fellowship money for graduate students in the Physical Sciences.<sup>60</sup> Humble Oil began promoting a 15,000 acre industrial-commercial-residential development adjacent to the MSC facilities,<sup>61</sup> the residential portion of which was expected to house 18,000 residents.<sup>62</sup> By March 1964, plans for a 7,200 acre industrial district on Humble's property were also well under way. The latter was reputed to be capable of including \$900,000,000 in new plant investment, and Lockheed

<sup>57</sup>*The Daily Oklahoman*, August 10, 1961.

<sup>58</sup>"Remarks by James E. Webb at First National Conference on the Peaceful Uses of Space," Tulsa, Oklahoma, May 26, 1961, Speech File, Webb Papers.

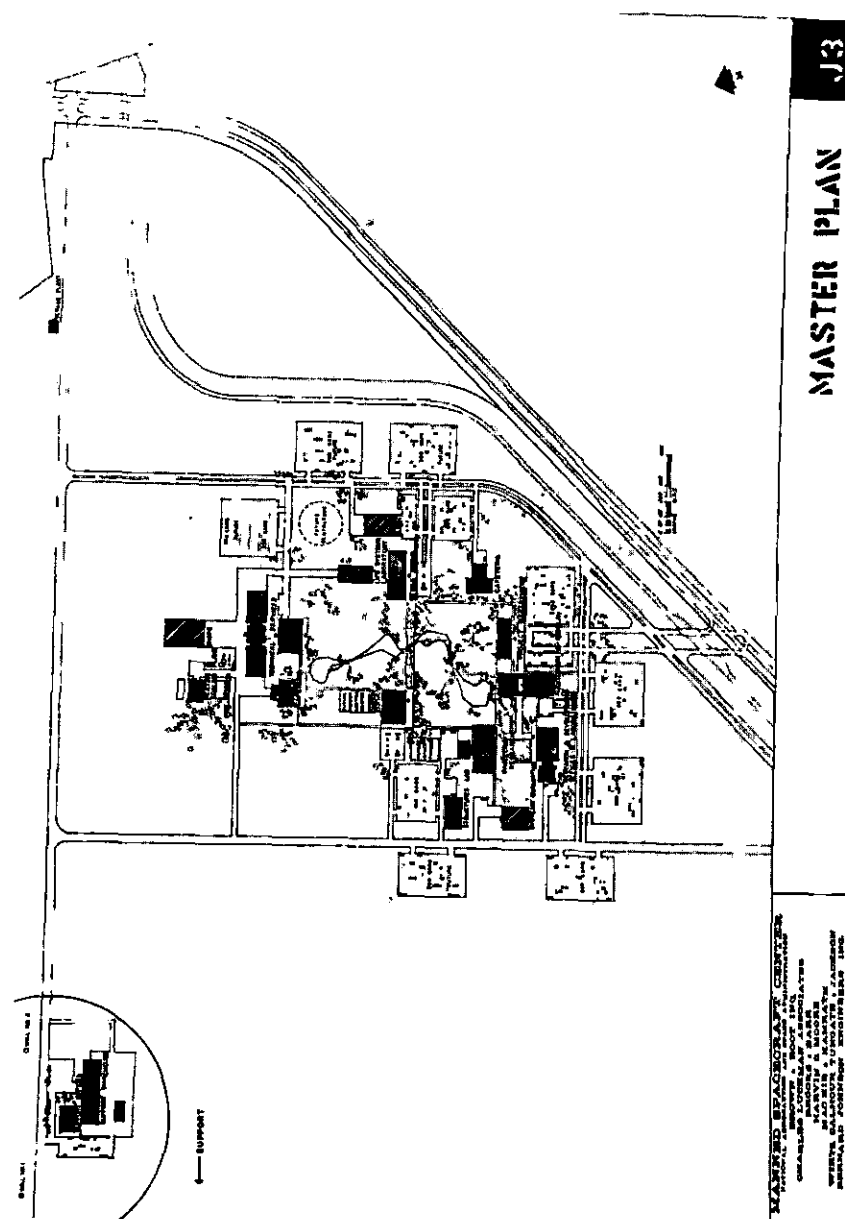
<sup>59</sup>*Houston Magazine* 33 (February 1962): 26.

<sup>60</sup>*Houston Magazine* 33 (September 1962): 33.

<sup>61</sup>"Chemicals and Petrochemicals in Houston," *Houston Magazine* 33 (March 1962): 46-49.

<sup>62</sup>*Texas Magazine*, *Houston Chronicle*, August 31, 1964, 77.





The Master Plan for the MSC: a considerable triumph for Brown and Root.

Aircraft had already purchased the first 500 acres.<sup>63</sup>

The facility quickly inspired an upswing in the Houston economy. After James Webb announced Houston as the site for the MSC, Lyndon Johnson described the center "as the greatest thing for Texas and Houston since the Ship Channel," and Albert Thomas predicted that it would "create a small revolution in Houston's business life."<sup>64</sup> It would seem that the MSC did have a major impact on the city, as a rapid growth spurt followed during the next decade. Between 1954 and 1963, the increase in value added by manufacturing was 56 percent but in the post MSC decade (1963-1972), value added grew by 118 percent.<sup>65</sup> The number of manufacturing establishments also increased during these years. Between 1954 and 1963, over 700 additional firms (a change from 1557 to 2261) began operating in the Houston metropolitan area. During the 1963-72 period, however, the number of manufacturing firms increased from 2261 to 3169, an addition of over 900 establishments.<sup>66</sup>

Houston also became an immediate recipient of NASA contracts. In 1964, Houston area firms received approximately \$11 million in NASA funds,<sup>67</sup> and by 1972 the total had increased to \$262 million.<sup>68</sup> In 1962 alone, 29 space-related companies had established plants in the Houston area,<sup>69</sup> and by 1965, 178 Houston area firms had prime contracts with NASA, the largest among them being Brown/Northrop, Graham Engineering, General Electric, IBM, Lockheed, and Philco.<sup>70</sup>

Corporate headquarters likewise began to relocate in Houston, with 150 such moves taking place between 1967 and 1973. These moves were made ostensibly because of Houston's attractiveness as a "technological capital,"<sup>71</sup> a development owed primarily to the city's Space-oriented economy. The economic benefits at stake in the NASA decision clearly were substantial.

Thus, the pressure to uplift Houston's economy was a prominent feature on the political landscape which produced NASA's decision. The city's business community, led by Brown and Davis, and its political spokespersons, Thomas and Johnson, had organized an effective booster campaign that Webb could not ignore.

To a great degree, Webb invited such pressure. When he enlisted the support of elites outside the space agency, he had to be sensitive to their

<sup>63</sup>"Bayport Expands Industrial Complex," *Houston Magazine* 35 (March 1964): 22.

<sup>64</sup>*Houston Post*, September 20, 1961.

<sup>65</sup>*Census of Manufacturers, 1967, Volume III, Area Statistics, Part 2* (Washington: 1970) 44-21; *Census of Manufacturers, 1972, Volume III, Area Statistics, Part 2* (Washington: 1976), 44-21; *Census of Manufacturers, 1963, Volume III, Area Statistics* (Washington: 1966), 44-6.

<sup>66</sup>*Ibid.*

<sup>67</sup>*Houston Magazine* 34 (September 1964): 20-21.

<sup>68</sup>U.S. Community Services Administration, *Federal Outlays, City Summaries, 1972* (Washington: Community Services Administration, 1973).

<sup>69</sup>Hurley, *Decisive Years for Houston*, 215.

<sup>70</sup>NASA Executive Files, 1965, Johnson Papers, passim.

<sup>71</sup>*Houston Magazine* 45 (September 1974): 49.

interests. Yet in seeking such support, he was simply employing an effective tactic used in bureaucratic in-fighting. Because Houstonians were important participants in the alliances Webb had created, the NASA administrator dutifully had to consider their needs and, in particular, their desire for the MSC.

Thus, Webb's May 23 memorandum to Vice President Johnson assumes tremendous importance because it connects Johnson, Thomas, Brown, Rice University, and Webb in the consideration of an MSC site at Houston. Also, before anyone had been publicly apprised of NASA's needs, Houston boosters had stolen a march on other communities which may have wanted the MSC. Once the details of Kennedy's revitalized space program were announced, other cities began extensive booster campaigns, but theirs paled in comparison to Houston's, which enjoyed several positive features none of the others shared: the Vice President, who favored the Houston site; a Houston representative who conceivably could have deprived NASA of important funding if his city were "bypassed;" a government contractor and powerful business executive who was on a first-name basis with the NASA Administrator; an oil company executive who represented support from the petroleum industry; and a scientist/university president who provided allegiance from the academic community.

Webb's role, however, must be kept in proper perspective. The same forces which supported his agency also created problems. Kennedy and Johnson, for example, enjoined a notorious rivalry over who would "lead" the space program. Or, witness the very interesting relationship between Thomas and the Vice President. Thomas publicly gave Johnson some credit for securing the MSC, declaring, "He did plenty with a capital 'P' "<sup>72</sup> but according to Webb: "These men were not friendly [to each other], and each one wanted credit for all that went to Houston."<sup>73</sup> Webb has further explained that his main problem:

was to try to reconcile all these diverging points of view and to deal with quite a number of Massachusetts and other friends of President Kennedy who wanted to be considered for this work [the MSC]. This meant that one of my main responsibilities was to make sure that the pattern necessary for the accomplishment of the task was not distorted by these kinds of extraneous political, personal and other types of relationships.<sup>74</sup>

Although sympathetic to the interests of Houston's promoters, Webb also had to maintain a delicate balancing act, one sensitive to the needs of a compelling number of regional and political interests.

One should not conclude that the space agency did not consider spatial/locational factors as part of its requirements. Indeed, it is difficult to imagine

<sup>72</sup>Houston Post, September 24, 1961.

<sup>73</sup>Webb to author, April 23, 1961, personal letter.

<sup>74</sup>Ibid.

the MSC coming to Houston if the city did not possess an inland water network, a skilled work force, prominent universities, a mild climate, and adequate space for NASA projects, but other cities — most notably Tampa, San Francisco, San Diego, Jacksonville, and St. Louis — also fulfilled these criteria.

But one should not overstate the importance of spatial/locational considerations either. NASA's choice, in other words, cannot be separated from the political landscape which affected that decision, including high-level Washington politics or the booster campaign exercised by Houston's entrepreneurs. Thus, Governor Volpe was not incorrect in charging that political pressures affected NASA's decision.<sup>75</sup> It could hardly have been otherwise.

<sup>75</sup>Volpe's charge also may have sensitized Webb to New England's needs. In 1964, NASA was seeking a site for its Electronic Research Center (ERC). The space agency ultimately selected a Boston site, possibly to placate the late President's supporters and John Volpe.

There is an interesting postscript to this episode. In late 1969, President Nixon attempted to reduce NASA funding, designating the ERC as the most appropriate NASA lab for elimination. The Secretary of Transportation, however, persuaded the President to convert the ERC into a Transportation Systems Center, a research facility for transportation technology. The Secretary was John Volpe. W. Henry Lambright, *Governing Science and Technology* (New York: 1976), 169-171.