

# SPACE JAPAN BOOK REVIEW

From a satcom researcher point of view

Reviewer: Takashi Iida, Editorial Advisor



Alex Abella: "Soldiers of Reason: The RAND Corporation and the Rise of the American Empire", Houghton Mifflin Harcourt, 2008.

I know the name of "RAND" as a research institute about national security, but thought to the degree whether it is one of research institutes affiliated to the Massachusetts Institute of Technology. However, this was wrong belief. This book is translated into Japanese in 2008. Then I will introduce contents of this book briefly below.

RAND stands for Research And Development, and there is not a special meaning, but it is a think tank that has created tremendous results as a big research hub relating to national security established in 1946 and it has produced 29 Nobel prize winners from the persons concerned to this research institute. But to get Nobel prize is not a purpose, and, in fact, it is said to be the research institute that Air Force General C. LeMay, who is one of founders and gave military gains by full use of the operations research (OR) for the air raid on Tokyo city during World War II, aimed at converting the world like God into what he himself images. In actuality, Rand Corporation had a purpose not to scatter excellent brains after the end of World War II under full-scale support of the Air Force, and to study based on the thought that the necessary solution for a threat in national security exists in rather science than diplomacy. In addition, the Air Force gives financial support, but it is the research institute which has independent characteristics with a report duty exemption in a contract.

A lot of advanced theory, which is familiar to us today, are produced in the Rand Corporation, including system analysis, theory of games, MiniMax theorem, linear programming, zero-sum game, failsafe, military revolution of military affairs (RMA), prisoners' dilemma, and packet switching. It also started investigation of possibility of man-made satellite launching from 1946 and studied a policy problem related to communications satellite development in 1960.

The followings are contents that we should pay attention to at the time of the Rand Corporation establishment.

- To invest more-better-than a larger amount of fund for fundamental researches.
- The maximum necessary freedom should be given to push forward one's own study.
- When holding the various restrictions at a minimum, the new contribution that couldn't have been so far imagined is considered to be done for development of armed forces
- The most effective method that promotes an original creative thought is to give all the researchers the same authority and to make compete each other.

The Rand Corporation conducts studies to confront the Soviet Union seriously in the Cold War period. There is the Corona program of reconnaissance satellite development as an interesting concrete result that Rand Corporation concerned. This was the U.S.'s first reconnaissance satellite program, and satellite launching was started in 1958, but finally succeeded by the thirteenth satellite launching in 1960. Its resolution seemed to be 1.8 m, but it was used as intelligence in the Cold War. It was very useful in intelligence such as "the six days war" between Israel and Arabic countries in 1967 and invasion to Czechoslovakia by the Soviet Union in 1968. President Eisenhower said "We spent 35 to 40 billion dollars in space program. Even if nothing had result besides the knowledge that we got by a photograph from space, it is worth 10 times as much as the expense."

The writer of this book is a contributing writer of the Los Angeles Times. A lot of episode about well-known persons who were the staff of Rand Corporation are introduced in this book. Examples are shown as follows:

- John Von Neumann is famous for a von Neumann architecture computer, but he is also famous about theory of games, MiniMax theorem and zero-sum game. He was proud of a wonderful memory so as he read a book once, and to have been able to remember the book entirely. In addition, mathematician John Nash played an active part with him and he seems to become a model of film "A Beautiful Mind" (2001).
- Albert Wohlstetter is a person who conducts basing study and proposed concept of fail-safe, and he is the most influential person among RAND researchers. He was a child prodigy of mathematical logic and contributed an article to Philosophy of Science at 17 years old. Einstein read it, was impressed, and invited him to his home to argue while drinking tea. In addition, Wohlstetter's wife is praised highly in her book of "Pearl Harbor - warning and decision" as a researcher, and this book concludes that the U.S.A. could not recognize the warning sign to show Pearl Harbor attack plan due to unnecessary information noises.
- Hermann Kahn insisted on hydrogen bomb War theory. He established Hudson Institute later. He originated futurology, a doctrine that the destiny of humankind was to populate outer space. He seemed to be a model of Dr. Strangelove of film "Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb" (1964), starring Peter Sellers and directed by Stanley Kubrick. I think that Yoshiki Hidaka of "Hidaka's Washington Report" <sup>(1)</sup> works as Visiting Senior Fellow of the Hudson Institute.
- Kenneth Arrow was opposed to Marxism and established rational choice theory and won Nobel Prize in Economics at 51 years old. It is said that his studies in the Rand Corporation is still with secret handling. Masahiko Aoki, Japanese economist, took his teaching in Stanford University. <sup>(2)</sup>
- Andrew Marshall performs a system of today's RMA theory. Whenever new military technology appears, RMA happens and has at least 12 times of RMA in world history. Six times happened for the past 200 years and three times from 1939 onward among them. The most important thing is that a side managing new technology gets victory.

In addition, Rand Corporation contributed to a small government of Reagan Administration, Reaganomics, and there are well-known persons including R. McNamara, Secretary of Defense, D. Rumsfeld, the same, C. Rice, Secretary of State, and H. Kissinger, the same. Many geniuses with unmanageable talent as mentioned above appear in Rand Corporation. I wonder where such geniuses go in Japan. I worry whether there is any place ready to accept them. But, current Rand Corporation has a tendency to force a organizational thought same as other many organizations. This seems to contradict for the organization which has respected rationality on a study side and originality so far.

In the mention above, I focused to research and development of Rand Corporation, but this book describes about revelation of a secret report of Vietnam War in 1971 by the staff of RAND in detail. Finally, a book review about this book in a newspaper is useful <sup>(3)</sup>.

#### [References]

(1) TV program once a month in TV-Tokyo.

(2) Masahiko Aoki. "My Personal History 17 To Stanford", Nikkei Shimbun, Oct. 18, 2007 (in Japanese).

(3) Fumiaki Kubo, reviewed: "Alex Abella, RAND the Rise of the American Empire —Scientific thought which moved American policy", Asahi Shimbun, Jan. 4, 2009 (in Japanese).