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40 CENTS

Strong Premier

Nakasone Stirs Pride Of the Japanese as He Firms Up Ties to West

Homemade Foreign Policy, Defense Buildup Sought; Bureaucracy and Inertia

Can He Break 2-Year Jinx?

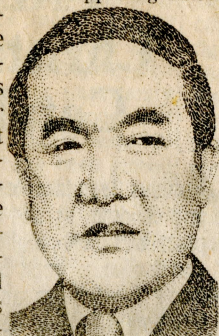
By URBAN C. LEHNER

Staff Reporter of THE WALL STREET JOURNAL

TOKYO—It attracted little attention elsewhere, but in Japan almost everyone noticed immediately: In news photos from the seven-nation summit meeting in Williamsburg, Va., Japanese Prime Minister Yasuhiro Nakasone appeared front and center, right next to President Reagan. And something in his confident pose suggested, subtly but unmistakably, that he belonged there.

"That never happened before," says political scientist Tetsuya Kataoka. "Our prime ministers have always stood on the sideline."

A good many things that never happened before in Japan have been happening since the articulate, conservative Mr. Nakasone (pronounced nah-kah-so-neh) took over as Japan's 15th postwar prime minister last November. Confounding pundits, who predicted he would prove a short-term, "caretaker" prime minister, the 65-year-old Mr. Nakasone has emerged as a powerful leader who could



dominate the Japanese political scene for years. He has done so by establishing himself as a fully accepted, equal member of the club of Western leaders; by appealing openly to the growing feelings of national pride among the Japanese people even as he strengthens Japan's ties to the U.S. and Western Europe; and by struggling against Japan's bureaucracy, inertia and deeply engrained postwar pacifism in an effort to al-

What's News—

* * *

Business and Finance

LEADING INDICATORS rose 0.3% in July, signaling that the recovery's pace will slow from the second quarter. The index rose for the 11th month in a row, but it was the weakest gain since last August. The July rise followed a revised 1.9% gain in June and 1.2% in May.

(Story on Page 3)

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U.S. and Japanese trade officials have started informal talks aimed at producing an agreement on limiting Japanese car imports for a fourth year. But with the growing recovery in auto sales, further restraints are likely to boost prices in the U.S.

(Story on Page 3)

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Watt ordered Interior officials to issue final rules that would reduce royalty payments on much of the natural gas produced on federal lands. But several Western states have contended it will substantially cut revenue over the next 10 years.

(Story on Page 2)

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Harris Bankcorp said it held preliminary discussions that could lead to its acquisition by a "major international bank." Bank of Montreal, which already has units in New York and San Francisco, declined to comment on rumors that it is the suitor.

(Story on Back Page)

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Small electric cooperatives have misused millions of dollars in low-interest federal loans, the Agriculture Department's inspector general charged.

(Story on Back Page)

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Baldwin-United's effort to develop a debt-refinancing plan could be helped by rehabilitation proposals for six insurance units seized by Arkansas

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World-Wide

SHULTZ SAID the U.S. will try to help open talks to end Lebanon's civil strife.

The talks would be between Lebanon's government and leaders of armed factions. He also warned that Marines in the peace-keeping force in Lebanon will defend themselves if attacked and said the U.S. hasn't any plans to alter the size or mission of the 1,200-member Marine contingent. Shultz indicated Reagan isn't planning to invoke the War Powers Act. (Story on Page 2)

Lebanon said army troops regained control of practically all the Moslem sector during a sweep through West Beirut to clear out the militias that precipitated the fighting this week.

* * *

POLISH POLICE CLASHED with over 10,000 Solidarity supporters in two cities.

But Lech Walesa and 2,000 others in Gdansk were allowed to demonstrate on the third anniversary of the outlawed labor union. The protests in Nowa Huta and Warsaw, called by Solidarity's underground, were the first on a wide scale since the July 22 lifting of martial law.

Reagan praised Solidarity, saying it had "challenged the whole might of a modern totalitarian state."

* * *

Begin's Herut Party is expected tonight to decide on his successor as party leader. Foreign Minister Shamir and Deputy Premier Levy are the main candidates. Begin, who plans to submit his resignation soon as Israel's prime minister, has refused to pick an heir. (Story on Page 26)

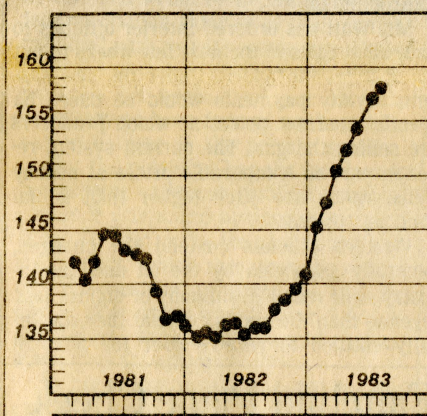
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Benigno Aquino Jr.'s funeral procession to a Manila suburb drew up to two million Filipinos. Later, one person was killed and 18 injured as protesters clashed with police near the presidential palace. Jaime Cardinal Sin called for a restoration of the "freedoms the people have lost." The opposition leader was slain Aug. 21. (Story on Page 26)

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Medicare's flat-rate reimbursement plan was outlined by the U.S. The new plan, which will be phased in over three years starting Oct. 1, was ordered by Congress in the hopes of spurring greater cost savings

Leading Indicators



COMPOSITE of key indicators of future economic activity rose in July to 157.7% of the 1967 average from a revised 157.2% in June, the Commerce Department reports. (See story on page 3.)

Far Above the Seas, Astronauts Contend With Sailors' Curse

They Study Motion Sickness To Seek Cause and Cure; When Codfish Get Seasick

By ARLEN J. LARGE

Staff Reporter of THE WALL STREET JOURNAL

William Thornton turns his head to the left. Then he turns it to the right. Then up, then down. Eyes fixed straight ahead. The same old stuff, every day. A boring routine, it would seem.

Actually, it is important stuff, as astronaut assignments go these days, and at 172.5 miles above earth in the space shuttle Challenger, the head-turning routine is one of the job's compensating moments.

During part of every day on the current six-day mission, Dr. Thornton hooks up his electrodes and runs through a series of exercises for the eye and inner ear. When Challenger last flew, in June, astronaut Norman Thagard, also a medical doctor, did much the same thing. The exercises in zero gravity are exactly duplicated on the ground in regular gravity. The data are compared, to give the National Aeronautics and Space Ad-

Business Bulletin

A Special Background Report On Trends in Industry And Finance

MATH AND SCIENCE are reemphasized by public schools.

The spread of advanced technology, especially computing, prompts the schools to stress skills useful in technological careers. Going beyond the post-Sputnik changes of a generation ago, more than a dozen states since 1980 have adopted or toughened science and math requirements. "Math and science are the key to a sizable percentage of the new labor market," says Robert Bauers, an Ohio education official. Florida, which had no such minimums before, now will require public-school students to take three years of both science and math.

Arkansas, without any standard right now, mulls one even stiffer than Florida's. In New Jersey, a task force on technology-trained manpower urges, among other measures, "far more homework" in math and science for high-school students. But rewriting rules might prove easier than finding enough qualified teachers. Florida's hiring needs in math and science rose 20% this year as a result of its new standards.

Ohio considers easing teacher-certification rules, so that more specialists from industry will switch to teaching science or math.

COMPUTER COURSES keep growing at colleges, yet can't meet demand.

Computer-class capacity grows about 10% annually at the University of Wisconsin at Madison — not enough to accommodate about 1,000 students a semester who are turned away. For some students who do get in, the computer terminal may be outside in a hallway because the classroom is too small and a new building isn't finished yet; and time on that terminal may be available only after midnight.

At Georgia Tech, computer enrollment was just expanded about 14%, but the school still had to impose its first quotas on computer-science majors. Lehigh University tells professors to spread out assignment deadlines, so the computer isn't swamped on

Cash Overflow

As the Money Rolls In, Movie Makers Discover It Is a Mixed Blessing

Investor Funds and Cable TV Yield Ballooning Budgets And Potential Film Glut

A \$12 Million Bid for Stallone

By STEPHEN J. SANSWEET

And LAURA LANDRO

Staff Reporters of THE WALL STREET JOURNAL

HOLLYWOOD—The movie business is awash in an unprecedented flood of outside production money, but the results are liable to be a mixed blessing for an industry already undergoing other wrenching changes.

Investors, lured by the glamour and potential payouts from giant box-office hits, in just the past two years have poured about \$500 million directly into film production, through public offerings and private placements. Despite problems and criticism that have led deal makers to restructure and modify the terms of initial offerings, that figure could nearly double by the end of 1984. In addition, cable television and other new corporate sources are providing more than another \$1 billion in film funding.

Despite the influx of so much non-traditional financing, many movie-company executives are cautious or even gloomy about the industry's prospects for the next few years, although some of them say that the new financing so far has been a bonanza for their own companies. They fear a glut of movies that could lead to a strain on profits and a breakdown of traditional distribution patterns. And more money chasing after the same relatively small pool of "name" talent has already started a new round of inflation in movie budgets.

Too Much Money?

"People come in all the time with financing offers, but there's more money out there now than can be properly handled," says Frank Price, chairman of the Columbia Pictures unit of Coca-Cola Co. That remains the case even though almost every major studio



EDUCATION

a special report

Far Above the Seas, Astronauts Contend With Sailors' Curse

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They Study Motion Sickness To Seek Cause and Cure; When Codfish Get Seasick

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Motion sickness is an ancient, queasy curse. Motion makes Johnny carsick on the way to Grandma's. A heaving quarterdeck was the downside of Adm. Nelson's career at sea. The undulating lope of his camel made Lawrence of Arabia seasick in the desert. The ailment afflicts not just people but dogs, too. And even fish. Codfish in a tank of water carried by a ship on rough seas have been known to get green around the gills.

Greeks Had the Word

The word nausea, denoting the old companion of seasickness, comes from the Greek word *naus*, for ship. Old as the malady is, scientists still aren't sure what causes it, though the working of the inner ear is strongly suspected. Somebody in the 19th century made the prescient observation that there wasn't any sickness among a shipboard group of 15 deaf people—a finding fully confirmed years ago. Scientific interest in motion sickness has mounted lately because of the illness encountered by American astronauts and Soviet cosmonauts in the zero gravity of earth orbit.

Space sickness aside, the intensified research efforts of the past decade already have led to new nausea-quelling medication useful on earth. And broadened knowledge of the workings of the ear and other motion-sensitive organs could be a boon someday to people who suffer from such related problems as disorientation and dizziness.

The first astronauts strapped into their pathetically small Mercury capsules felt okay in the stomach because they could hardly move. But sickness began to occur in the bigger moon modules, and the first flights of the roomy space shuttle took a toll among crew members that really alarmed NASA.

Space doctors are particularly baffled by their inability to predict which individuals will, in the first day or so of weightlessness, show symptoms ranging from lack of initiative to headaches to vomiting. Even some military pilots who didn't have any problem while flying have suffered discomfort in space. And no amount of pre-space-flight testing in centrifuges and rotating chairs seems to pinpoint potential victims. "Folks who were susceptible to sickness in the rotating chair never even had a twinge in orbit," says Dr. Thagard, the astronaut.

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More Data Needed

A last-minute addition to the crew of Challenger's June flight, he was in charge of on-board experiments testing the theory that people get sick when the brain senses a conflict between what the eye sees and what detectors in the inner ear say about head motion. NASA wants huge stacks of statistical data showing any difference between such sensations on the ground and in orbit.

"If there's something there and if we do this enough, we'll find it," Dr. Thagard says.

In-flight experiments aboard the shuttle are just part of NASA's extensive study of motion sickness, now costing more than \$5 million annually. Besides conducting research in its own laboratories, the space agency is hiring a dozen universities and medical centers to poke into the problem's slightest details. Space-sick people get pale, and so the Massachusetts Institute of Technology is trying to make a device for measuring exact degrees of paleness. Better methods of predicting who will get sick in orbit are being explored with NASA money at the Ashton Graybiel Spacial Orientation Laboratory at Brandeis University.

Ashton Graybiel, age 81, is a pioneer in motion-sickness research. Testing human subjects in a room that spins slowly, Dr. Graybiel in the 1970s hit on a drug combina-

Far Above the Seas, Astronauts Fight Ancient Curse of Seasickness

Continued From First Page

tion that seems to work wonders against old-fashioned seasickness. The formula: Take a pill containing the prescription tranquilizer promethazine together with another pill containing ephedrine, an over-the-counter cold remedy, three hours or so before heading into rough waters.

"It really works," says Capt. Vincent Fierro, the U.S. Coast Guard's chief pharmacy officer. Seasickness has always been a tougher problem for Coast Guardsmen buffeted around in their small cutters than for sailors in the big-ship Navy. Coast Guard medical boards had to boot many seasick-prone men out of the service. But with the advent of the "P&E" drug combination, Capt. Fierro says, "you just don't put people out for that reason anymore." Because of the side effect of drowsiness, however, the drugs aren't given to pilots of Coast Guard airplanes and helicopters; astronauts don't use it for that reason, either.

At the Naval Aerospace Medical Research Laboratory in Pensacola, Fla., scientists are seeking ways to combat airsickness among Navy pilots. Like NASA, the Navy is exploring combinations of tests in spinning chairs and other devices to predict which individuals will have severe trouble in rough air. "Now we can predict better than chance," Frederick Guedry, a Navy researcher, says, "but we'd like to improve our predictions." Sickness-prone subjects are put through a battery of exercises to see whether they can adjust their bodies to the effects of turbulence before getting into the cockpit.

Different Problems

The diverging goals of the U.S. and Soviet space programs cause somewhat different medical problems for astronauts and cosmonauts. Some Russian crewmen experience sickness at the outset of those months-long missions in their Salyut spacecraft, but most soon adapt to orbital motion and have no trouble for the rest of the flight. However, like astronauts up as much as two weeks, the cosmonauts pay their dues upon return to earth, staggering and falling on rubbery legs that have become unused to normal gravity.

In contrast to the lengthy Salyut missions, the U.S. space shuttle puts crews aloft for a tightly packed work schedule of just a week or so. Because the initial two or three days needed for motion adaptation accounts for an important slice of the whole mission,

shuttle sickness can be significant.

Astronaut Thagard says that sickness so far hasn't impaired any flights, that it merely "takes away from the enjoyment of the mission." Yet NASA records show that seven of the 16 crewmen on the first six shuttle flights got sick, and of those seven, six vomited. Should the shuttle need to make an emergency landing on the mission's first or second day while the crew is still vulnerable, vomiting in a space helmet could be dangerous.

Small Doses Used

That's why the space agency is very serious about finding an answer to motion sickness. For now, astronauts making their first flights or those who have felt queasy in ground tests swallow the antisickness drug scopolamine just before launch. Some have resorted to the widely used scopolamine-soaked skin patches, but the dosage is kept small to avoid inducing drowsiness. All are given small tape recorders to make daily descriptions of how they feel.

For the longer term, NASA is pushing scientists in its own labs and at universities to explain the cause of motion sickness, so that it can be avoided. Currently, most scientists prefer the "sensory conflict" theory about confusing signals from the eye and the inner ear. Some prefer a rival hypothesis about body fluids pressing on the inner ear during weightlessness, and some think that it may be a combination of the two.

Arnauld Nicogossian, a NASA space doctor, seems confident that a method of spotting sickness-prone astronauts will be found someday, but not for the purpose of washing them out. "When we find a way of predicting," he says, "we will try damned hard to keep the people in the program and use countermeasures to help them fly the missions."

TLS Combination Offering

CEDAR RAPIDS, Iowa—TLS Co. said it filed with the Securities and Exchange Commission initial public combination offering of 700,000 common shares for early October.

TLS said 450,000 shares will be sold by the company and 250,000 by certain holders. Dain Bosworth Inc. will manage the underwriting. It is expected that the shares will be offered in a range of \$9 to \$11 each, Dain Bosworth said.

TLS provides computerized information-processing services to tax specialists.