

A MESSAGE FROM LOUIS RIGGS:

We are indeed pleased with the response to the first TEC Newsletter published on November 1, 1962. With the continued wholehearted support of all of the staff and their families, we shall continue to try to improve it.

Perhaps all of you will be more inclined to send in colorful news items as they come to your attention instead of waiting until the deadline produces a last minute rush. Please send items in whenever you feel inspired. Mark them "Newsletter" and send them to Bert's attention or to me.

The editorial staff wishes to lead off this Newsletter with thanks to the following contributors:

Mary Coker
Oral Conyers
Syd Harwood
Les Helgesson
Bob Janopaul
Andy Lamore
Fred Madigan
John Marr
Ray O'Neil
Carl Otto
Paul Potter
Art Reitter
Bob Repp
Alyce Storey
Ralph Tudor
Bela Vadasz
Bob Wilkinson

NEW JOBS AND JOBS COMPLETED:

Negotiations continue on the proposed Messina Strait Bridge. Our agreement is with SASSIM, an Italian group, seeking a concession from the Italian Government to build the bridge.

Believe it or not, the four year study and design effort in connection with Bear Creek Road in Contra Costa County has come to an end. The final submittal of tracings and related documents took place in January with just a twinge of nostalgia. Over the several years, scores of people were involved in the job (and to show how far back it started, we quote a few names: Whatshisname, Bob Johnston, Peter Hetsch). It was a most interesting project, what with its many ramifications, and we will all miss the familiar name on our time sheets.

POET'S CORNER

by Mary Coker

Ah Choo!

The weather is freezing!
The girls are all sneezing
The temp is at 30 (above).
We've all been a' cursing
(while sinuses nursing)
This city we so dearly love.

But--recall when, last Labor Day
Prostrate with heat
Our tongues already swollen
And swelling our feet,
We were lurking in shadows
And ferreting out shade.
It was too hot to move,
Though we were getting paid.

Just grizzling, grumbling,
Muttering, mumbling,
Complaining, exclaiming and mean.
No matter how pretty
This wonderful city,
The climate should stay "in between."

(New Jobs and Jobs Completed continued)

Robert Janopaul reports the 180-unit Mobile Home Park in Milpitas was completed and opened for operation in December. Pioneer Parks had opening ceremonies on December 17, 1962. Construction started on this \$650,000 park in July, 1962 with Vic Subbotin providing supervision of field construction. Prominent local officials consider the Pioneer Parks project to be an outstanding addition to the city's development. A second phase 100-unit addition is in the planning stage with design probably starting when occupancy in the present park indicates a need for further expansion.

Negotiations between Calaveras County Water District and protestants to their applications for water in the Stanislaus River have been discontinued. A decision from the State of California Water Rights Board on these applications is now expected in the near future. Hearings before the Board were completed some months ago. The next activity being planned on the Calaveras Project is a hearing before the Board on applications for water in the Calaveras River.

Talks with the Chief Engineer and General Manager of the Merced Irrigation District point to a good possibility of resumption of final design activity by May of this year on the Merced River Project.

INTERESTING EVENTS ON CURRENT JOBS:

NEWS FROM WASHINGTON:

John Marr reports that the work load continues to be heavy and this year is shaping up to be one of their busiest since the original contract was signed in 1956. The total number of consultants retained this last quarter is 12 and requests have recently been made for seven more to go overseas. A total of 42 reports were completed in the last quarter alone, 11 of which were on major projects and 31 were brief technical reports.

The Washington office recently moved to 733 - 15th Street, N.W., Suite 326, which is only about two blocks from the old address. This action was prompted by the request of their former unpredictable landlord. The new location is so arranged that everyone has their own office. They also have dependable elevators in this building and are hopeful that the air conditioning system will work (an experience they have not had for years).

NEWS FROM PALM SPRINGS:

Temperatures as low as five degrees have slowed down construction on the tramway project. However, everyone intends that the system will be in operation before the end of May, 1963.

Without a doubt, winter has arrived at Mountain Station with four light snowstorms so far. Clouds and turbulent winds have restricted helicopter operations on several occasions and Frank Paul has had to spend a couple of Friday nights at the Mountain Station camp.

Tom Mackenzie adds that they have been extra busy since their staff was reduced by the return of Hans Pokorney to the San Francisco office in mid-November. The job has been particularly active with many items of construction entering the final stages of construction. The more than 350 tons of track and other cables have been delivered to the site and all towers have been completed. The Mountain Station Anchorage structure is complete and only one pour remains to complete the Valley Station Anchorage. The restaurant and concession buildings are rapidly taking final shape and the access road is being dressed up for application of the wearing surface.

Governor Brown visited the project and was widely quoted as he exclaimed, "Tremendous!"

NEWS FROM LISBON:

Activity on the Main Bridge has concentrated on the assembly of the river pier caissons. Louis Riggs and Bob Janopaul spent the first two weeks of December in Lisbon conferring with Morrison-Knudsen representatives on launching procedures and sinking schedules. Ralph Tudor visited the project to attend ceremonies commemorating the launching of the Pier 4 caisson on January 10.

Increased activity is now in evidence on the viaduct and approaches with 6 structures started and the grading of

(News from Lisbon continued)

roadways now under way.

The testing laboratory, operated by Tudor Engineering Company, is in full operation designing concrete mixes, breaking concrete cylinders and classifying embankment material.

The number of Portuguese employees has been increased to 29 with the addition of 2 field engineers and 2 laboratory technicians.

The Main Bridge triangulation has been completed and the surveyors are setting intersection targets when weather permits.



TAGUS RIVER BRIDGE PIER 4 CUTTING EDGE BEING ERECTED

Tagus River Bridge Celebration--R. A. Tudor

January 10 was a red letter day for the Lisbon Bridge as this was the occasion of launching the Pier 4 caisson. As a ceremony this was a complete success, but as a launching it left something to be desired--the caisson did move toward the water but, like the reluctant swimmer, it stopped at the edge. The stoppage was not serious and it was expected that the dunking would be completed a few days later. The temporary delay was due to twisting the outer end of one of the launching rails and was probably caused by fouling one of the anchor cables.

The President of Portugal and the Archbishop of the country both attended the ceremonies. Prior to the 10th, the weather had been foul for two weeks but on the 10th, it let up somewhat. There was overcast, winds and showers. However it did not rain during the ceremonies and the sun did break through when the Archbishop pronounced the blessing.

The caisson for Pier 3 is well along toward assembly and will be launched in a month or two.

NEWS FROM BANGKOK:

Since there are no new jobs at hand, there has been a reduction in forces. There are still 30

(News from Bangkok continued)

people in the Bangkok office. Contracts completed are A C & W Stations, DaNang and Tan Son Nhut, Vietnam; Communications Facilities, Phu Lam, Vietnam; and DaNang Naval Facility Feasibility Study, Vietnam. The following design jobs are almost completed: Fy 62 Royal Thai Army Facilities, North Thailand; Naval Facilities Saigon and Cam Ranh, Vietnam; Medical Training Center, Saigon, Vietnam; and A C & W Station, Udorn, Thailand.

NEWS FROM LIMA:

The printed report on new port facilities in Chimbote for the steel mill was published and delivered on Peruvian schedule. It isn't known how much effect this had on its general acceptance but apparently the "when in Lima do as the Limennos do" applies to Latin America as truthfully as to Portugal. We are now in serious negotiations to accomplish the detailed design which has every promise of turning out successfully. The design should be an interesting project to undertake and provide a challenge to the engineering capabilities of those in San Francisco as well as our joint venture associate, Leonard Oboler Engineers, S. A. (By the way, S. A. does not stand for South American--it is similar to our Inc. abbreviation.) The prospective client for the design is a German firm so another facet shall be added to the international characteristics of TEC's work (so, Herr Otto).

Carl reports they are approaching the final stages on the feasibility report for a new pier for the fishing interests. Our client in this instance is a group of fishing companies who want to find a better way to export their fish meal. The present study analyzes the situation in Chimbote, but the fish meal industry has shown such an explosive growth during the past few years that improved facilities will be needed at several other points along the Peruvian coast very soon. Carl said that being able to observe a dynamic new industry in an awakening country is an inspiring experience, and the needs are so great that opportunities are unlimited.

The aspects of the fish meal process is an interesting one. The raw product is anchovies, relatively small fish caught by nets. In a good catch a boat will bring in about 100 tons per day. These are pressed and dried, forming a powdery meal which is used as a protein additive to stock feed. Present production in Peru is over 1,000,000 tons per year and sells for over \$100 per ton, so it is quite an industry. But when you remember that it takes 5 or 6 tons of fish to make 1 ton of meal, one wonders how long the cold, north-flowing Peru current will produce the raw material.

ON THE HOME FRONT, as was not unexpected, a taxpayers lawsuit has been brought against the San Francisco Bay Area Rapid Transit District Project and it is temporarily held up. An unusual feature of this suit, however, is that it has been alleged that the engineering contract will produce excessive profits to the engineers. As a result an injunction was issued which prevents payment of any engineering fees. Consequently the joint venturers are working only on a few items that cannot be delayed and risking the corresponding costs until the litigation can be completed.

(On The Home Front continued)

The judge has ruled that most of the allegations are without merit but the remaining items must go to trial. In all probability this case will finally go to the State Supreme Court and every effort will be made to expedite it. Nonetheless the delay can be several months.

All of our legal counsel advises that the ultimate decision will be favorable so we are confident this is only a temporary delay. Certainly there is no substance to the charge that the engineering fees are excessive.

Unfortunately, it has been necessary to reduce the size of the San Francisco office staff pending authorization to resume engineering work for SFBART District.

To assure continued close liaison with the District, however, the joint venture will open a small central office next week. Ray O'Neil has been assigned to the central office to coordinate efforts dealing with routes, right-of-way and utilities. Bela Vadasz has been directing the Tudor work on the Grove-Shafter Transit Route and will continue to do so.

NEWS FROM technical computing center :

TCC had an open house on January 11 which was attended by 60 people. Lectures and demonstrations in different engineering computer applications were given by Paul Potter, Tom Mulron, Oak Horn, and a couple of spies from 595 Mission Street, Lee Ann Genet and Bert LaVigne.

The transition from the name COMPUTEC has been accompanied by much enthusiasm and increasing business prospects.

Paul Potter has expanded the office by knocking a hole in the wall and moving some furniture into the room next door. Operating capabilities will be increased soon. Additional IBM equipment has been ordered which will greatly increase the number of numbers which the IBM 1620 Computer can store and digest and process data and whatever else goes on in there.

Five engineers of Tudor staff attended classes in FORTRAN at IBM and will receive further training on the machine at TCC. FORTRAN stands for FORMula TRANslating system and makes it possible for ordinary human beings to talk to computers.

Rainer Rungaldier has joined TCC staff as a permanent employee programmer.

MORE NEWS

Of academic interest is the fact that the Oakland Coliseum project is again coming into prominence. This gained momentum as a preliminary engineering study and report directed by Sam Seifert for TEC in 1960. It is interesting to note that John Marr authored a report in 1950 as Oakland City Planning Engineer which recommended the site finally chosen. The City Council this month adopted a resolution giving financial support to the project.

(NEW EMPLOYEES)

Frank L. Weaver joined the Washington staff in December. He recently retired from the Federal Power Commission, and will work on special hydro-electric power assignments.

Gene Altshuler joined the TEC staff on January 1, after being with us on loan from Earl & Wright for three months.

Jack Orndoff, formerly with General Tabulation Company, started with TCC on January 1 as a sales representative. He has a commercial accounts background to aid in order to extend services into the commercial field in order to augment scientific work.

Miss Rorie Gee started with TCC on January 15 as a key punch operator. She was formerly with Pacific Airlines.

PARTIES

On Friday, December 21, Tudor Engineering Company held their annual Christmas luncheon in the California Room of the Sheraton-Palace Hotel. It was even nicer this year (even though several of our people are 'way out yonder) to have had John Marr and Tom Mackenzie with us. Everyone enjoyed a delicious meal and Mr. Tudor brought us up-to-date on the activities for 1962. John Marr also spoke and convinced many of us that there really is a Washington, D.C. office. To end a delightful luncheon, Santa "Clause" distributed the annual bonus checks and a notice of the estimated profit sharing contributions, the sum of which totaled about \$100,000. Everyone was wished a Merry Christmas.

The Tudor people in Lisbon feel that in some respects they are more fortunate than the San Francisco contingent with their one Christmas luncheon and the Washington office with their July Christmas party. With Louis Riggs in Lisbon just before the holidays and Ralph Tudor there shortly thereafter, they were able to promote two holiday celebrations.

The Harwoods shared hosting duties with the Conyers at a community New Years Eve party at the Harwood's home in Sao Joao do Estoril. If decibel rating can be considered as a measure of success then it was a real blast.

TECPAE gave a Christmas luncheon for all employees at the Rama Hotel. Fred and Eva had an open house for TECPAE and friends, like about 50 guests, on December 29.

PERSONAL NEWS ITEMS AND TRAVEL

Best Wishes to . . .

. . . TCC's Maureen Restani who changed her name to Martinez on September 8, 1962. She and Johnny were married in St. John's Catholic Church.

. . . Lee Ann and Sid Genet who are celebrating their first wedding anniversary on February 10.

. . . Jim Albert and Jeannette Bailey, married December 29.

. . . Ruth Mattox who came to the office waving her hand in the air, and for good reason. Paul McCandless gave her a beautiful diamond for Christmas.

. . . Jean Tudor whose engagement was announced on Christmas Eve. Jean's fiance is Walter Farrell, a Stanford graduate in industrial engineering. The wedding will be in June.

There were a few moves during the past months. Bela changed his address and believes that now he has finally found his tooth brush and more or less is settled down in his new house. Gloria and her family moved to Westlake and, even with the longer commute, likes it very much. Mary Coker has quite a passion for moving. As of January 19, this is her fourth new home since July. She just starts getting settled, paints the rooms and decorates for the landlord and, after getting it pretty, finds something else more attractive. The first-class stamp on the Wilkinson's Christmas card got quite a workout tracking her down. After hitting all five spots, it finally arrived on January 29.

Tom and Francine Mulron took a vacation during the Christmas Holidays and visited Boise, Idaho, Francine's home, and Tom took advantage of the situation and went skiing at Sun Valley for a few days.

Alyce Storey is going to take four days off in February and visit Palm Springs to soak up some sunshine. Be careful, Tom Mackenzie, you can't keep our charming secretary to help with any little problems you might have on the tramway.

The Conyers were pleased to have their daughter, Tamea, with them for the Christmas Holidays. She is enjoying Paris more than she did Madrid last year although working much harder taking 6 subjects.

The Wilkinson family visited the south of Portugal over the New Years Holiday. Bob reports that his 20-month old daughter is now speaking more Portuguese than English; perhaps she will be of value to the project as a translator. The Wilkinsons are now firmly entrenched in their house in Cascais, about 15 miles west of Lisbon.

The usual Christmas lull in Washington afforded vacation opportunity for some of the staff. Tyler Sprake disappeared for three weeks and surprisingly enough managed to return. John Marr also left for a week only to become fogged-in by California weather.

During a few days in December, Eva and Fred Madigan made a tour which included Chiangmai, Thailand's second largest city and about 500 miles north of Bangkok. The city is surrounded by villages of various crafts such as silversmiths, weavers, lacquer ware makers, umbrella makers, potters and bell makers. The climate is like Napa Valley only a little warmer. Very colorful Thai dancing performed by the Chiangmai "belles" captured Fred's attention for most of the evening. They also went water skiing in the Gulf of Siam later in December and Fred discovered the following day that "he wasn't as young as."

(Personal News Items and Travel continued)

Fred and Eva are returning to San Francisco this month via Ankor Wat, Saigon, Hong Kong, Tokyo and Honolulu. Andy Lamore will remain as Chief Structural Engineer and Bob Thomas will be Chief Civil Engineer.

The Ottos say that life in Peru is different. "It's not only very different from any experience we have had before, but every day is so different from the previous day that we are in a constant state of organizing or being organized. Contrary to our expectations, the life of ease has its drawbacks, but we are getting used to them." Outings have included a trip to the Pachacamec ruins and a week end camping trip to a beach south of Lima. All water and fuel had to be taken to the camp site. Not a living thing could be found between the high tide mark and the Andes Mountains. Only interruption of the peace was a lone fisherman at 3 a.m. riding by on his burro and calling, "Fish, fish" in a loud voice so he wouldn't be mistaken for a thief and shot. What a contrast to the lush green camping site and swimming enjoyed in Hawaii.

The Mackenzies continue to keep more than busy with community activities and house guests and Tom has added a series of talks on the tramway before service clubs to his busy days. He also got in one day in San Francisco, for the first time since October, 1961, when he attended the annual Christmas luncheon.

Ralph Tudor's article on the Palm Springs Aerial Tramway which appeared in the November, 1962 issue of Civil Engineering has stimulated quite a bit of interest in the project. Also Stan Froid gave a presentation on the tramway to a record crowd at the January ASCE meeting of the Los Angeles Section.

Bert LaVigne was elected Treasurer of the San Francisco Section, ASCE, and will serve on the Board of Directors for the next two years. He did not seem to be doing much campaigning around the area, but he is suspected of soliciting new dues-paying members. Anyway, he jumped at an invitation to be guest speaker at a Chi Epsilon banquet at U.C.

Contract plans and specifications were completed and a contract was negotiated by Engineer Helgesson with Contractor Helgesson. A very amiable relationship ensued establishing a new high for harmony among contractors, owners and engineers. Out of all the flying sawdust emerged a handsome office in which Ruth and Gloria will count money and issue script. Also, the former store room now houses the Xerox copying machine and the nucleus of a library.

Admiral Trexel is off to Ecuador any minute; besides awaiting AID orders he has been keeping the wires hot between S.F. and Des Moines, Iowa where Mrs. T is visiting with her sister. Unfortunately, a few days of the stay in Iowa found her in the hospital. The doctor assures them all is well.

The Helgesson's older son, Alan, found a sure fire way to get his parents to come east for a visit. He got married! Les and Agnes had a wonderful trip to Massachusetts in October to attend the wedding. Alan's wife, Llyssa, is the daughter of an MIT professor. The couple live in Bedford, Massachusetts within commute range of Alan's job at Sylvania.

Gene Altshuler was passing out cigars on November 28 as a result of the arrival of David into this world. David couldn't decide for a few days whether to keep visiting hours during the daytime or nighttime, but believe everything and everyone are more or less settled by now.

The youngest son of Dewey Harwood, Brett, age 2, compounded a split forehead with a case of mumps but both are now on the mend.

Ralph Tudor is recovering from pneumonia which kept him confined to his home during the last week of January.

NEWS OF FORMER EMPLOYEES:

Steve Stevlingson is in charge of the Newport Beach office of Porter, O'Brien and Armstrong. He is toying with the idea of entering the company "Weasel" in the Newport Harbor Parade of Boats.

Bob Johnston is enrolled as a graduate student on the Berkeley campus of U.C. He is studying hydraulics and soil mechanics. Bob dropped by the San Francisco office and renewed old acquaintances on January 31.

We had a visit from Charlie Anderson who dropped by on one of his vacation days while his Downer Junior High School (Richmond) students were out for Christmas. He teaches shop and arithmetic.

Our hearts go out in sympathy to Mrs. Wadsworth on the loss of her husband, Ralph G. Wadsworth, who died in Washington, D. C. on January 1, 1963.

Mr. Wadsworth was Assistant Project Manager for the Washington, D. C. office from 1956 until his death. He was regarded highly in our company and by everyone in the Agency for International Development as well as being respected generally for his competence in engineering matters.

Prior to his association with Tudor Engineering Company, Mr. Wadsworth was active in the engineering profession in California, his experience being divided about equally between private engineering practice and public service. In the latter category he served as City Engineer of San Francisco from 1945 to 1955.

Mr. Wadsworth had a keen interest in his fellow engineers and was active in engineering circles. He was past president of the San Francisco Section of the American Society of Civil Engineers.

His many friends and associates mourn the passing of a respected and personable individual and a highly competent engineer.

TRANSIT GETS GO-AHEAD

A court ruling in Martinez today put plans for a three-county rapid transit system back on the tracks. Superior Judge Martin Rothenberg upheld the legality of the \$792 million bond issue election approved last November. He also ruled valid the contract between the Bay Area Rapid Transit District and its engineers, and

granted the district's motion to dismiss a taxpayers suit against it. **THE JUDGE** reserved until Monday a decision on two lesser legal points, but Adrien Falk, district president, declared: "The ruling clearly upholds the district except for legal technicalities. I feel our difficulties are 98 1/2 pct. solved."

Rothenberg asked lawyers on both sides to submit briefs on the issues still awaiting decision. These include a challenge on the salary paid B. R. Stokes, the district's public relations man. **THE JUDGE** concluded no evidence had been presented that information relating to the bond issue had been suppressed.

In earlier decisions, he ruled there had been nothing wrong with the actions of Kenneth M. Hoover, the district's chief engineer, or of the Citizens for Rapid Transit in its campaign for the bond issue. David Birenbaum, attorney for the taxpayer group, said the decision would be appealed to the State Supreme Court.

<p>COMPLETE STOCKS CLOSING PRICES</p>	<p>News Call Bulletin SAN FRANCISCO'S EVENING NEWSPAPER</p>	<p>9 STAR FINAL LATEST SPORTS</p>
<p>Vol. 4, No. 228</p>	<p>THURSDAY, MAY 2, 1963</p>	<p>Phone EX 7-5700 Price 10c</p>

May Editor R. K. O'Neil

PROGRESS AND PROGNOSIS
by Les Helgesson

"Things are looking up!" At least that's what one of the three patients said a month or so ago when all were flat on their backs. We're glad to report they believed in what they were saying, and are well along the way to complete recovery.

John Marr who is back in the Washington office for a good portion of the day has gained 10 pounds and says he has to watch his weight lest he get too fat!

Ralph Tudor is also on his feet again and is allowed to stay up about six or seven hours a day. He reports that he feels fine and is enjoying the leisurely living that has been forced upon him.

We understand, too, that Dunk Brown has improved greatly since arriving at Walter Reed Hospital, and that he has been allowed to go home. We are hopeful that the illness will not be as serious as first reported, and that he will be back to health in a relatively short time.

NEW JOBS AND JOBS COMPLETED:
Oakland
Early in 1961, we began negotiations with the City of Oakland to conduct a trafficways study for the central business district. The City's planning and engineering personnel have been working on the study right along and have most of the work accomplished. The contract with TEC, which was certified by the City on April 24, 1963, prescribes a greatly reduced scope of work.

POET'S CORNER Editor

One may sense something amiss,
The gals will reach for tissue,
But most will note in silent bliss,
No poetry in this issue.

(New Jobs and Jobs Completed continued)

In general, our responsibility is to review, analyze and make recommendations concerning plans developed by Oakland planners and engineers. For the next four months, this job will occupy approximately half the time of Bert LaVigne, Bob Repp and Vic Subbotin.

Contra Costa County
The last issue noted nostalgically that the Bear Creek Road effort had come to an end. More recent additions and revisions to EBMUD's borrow area plans have brought this old friend back into our midst.

No change in horizontal or vertical alignment is involved, but the ground line must be revised. This unique task has been entrusted to the able hands of Fred Madigan, the original Project Engineer. Fred reports that the revisions to the plans and specifications will be rather extensive, but that under no circumstances will the boring logs be altered. It is gratifying, however, that the changes follow TEC recommendations, and will reduce the cost of the construction.

(New Jobs and Jobs Completed continued)

Peru

The contract between TEC and Hochtief-Sybetra has been signed and we will begin performance of the tasks in connection therewith. Work under this contract consists essentially of design for a wharf intended primarily to handle bulk materials, but includes provision for general cargo handling and has appropriate related back-up appurtenances including an administration building.

Some work has already been performed under this contract and consisted of a comparative study of alternative types of wharf structure which could serve for the purpose of docking large vessels. This portion was performed on a letter of intent basis and has been submitted to the client. No decisions have been rendered as to the favored type.

Work to be accomplished in the San Francisco office will be limited to that of a structural nature associated with the wharf. The balance of the work including a dredged fill, administration building, utilities, surveys and other miscellaneous items will be handled through the Lima office in conjunction with our joint venture with Leonard Oboler.

Calaveras County

Calaveras, made famous a century ago by Mark Twain, Bret Harte and the Jumping Frog, now looks forward to a new kind of history. It has become the first of California's gold rush era counties to launch a big program for future development sparked by the Calaveras County Water District.

Although the county's population is a mere 11,000 and its assessed valuation only \$35 million, the county-wide District has set in motion an \$89 million water and power project as the first stage of an undertaking that will ultimately expand to \$200 million development of the water resources on three rivers of the county.

Through it the District expects to bring in 180,000 new irrigated acres for orchards and livestock feeding to help offset what urban sprawl is doing to prime agricultural land elsewhere in the state. Of this prospective acreage, 85,000 acres are in adjoining portions of San Joaquin and Stanislaus counties.

As the result of a State Water Rights Board decision on March 14 granting permits to the District to appropriate waters of the North Fork of the Stanislaus River, the next step is a revenue bond election.

Plans for the project will be prepared by TEC's Water Resources Division in San Francisco. Art Reitter and Bill Reinhard have been working with the District since 1958 developing the engineering features and conducting economic feasibility studies.

INTERESTING EVENTS ON CURRENT JOBS:

NEWS FROM WASHINGTON:

Syd Harwood takes over this month as Washington society editor. He reports that this last quarter was again a busy one but the pace is beginning to slow down. Part of the reason for this might be the onset of Fiscal Year 1964 jitters, or possibly that the baseball

(News from Washington continued)

season has begun with the Senators in serious contention for the pennant already.

Six consultants were sent overseas on various assignments ranging from municipal water supply to air conditioning. Of special interest were two assignments in Katanga Province to survey the damage to bridges and electric generating facilities resulting from the recent difficulties in that area. A total of 101 reports was issued, 7 being major reports. Twenty-nine were in answer to technical inquiries received. The remaining reports were on projects which have been continuing for some time.

NEWS FROM PALM SPRINGS:

Work on the Palm Springs Aerial Tramway has gone quite smoothly since our last report and is rapidly approaching completion. The most critical phase of the job, the erection of the track cables, is under way. When all four are in place, it will be possible to set the date for the gala opening and the first ride up the mountain. Local businessmen are paying \$1,000 to \$1,500 each for tickets on this first ride, with proceeds being used to advertise the project.

A bright spot in February was the arrival of Alyce Storey for a short Palm Springs Holiday. Our Palm Springs office secretary, Dorothy Dorfman, was called out of town by the unexpectedly early arrival of her third grandchild. Alyce filled in for two days, thereby getting in on some extra sunshine and swimming.

Frank Paul, Chief Inspector for the project, has spent most of his effort on architectural problems. He also did some "cliff hanging" while checking the installation of rock bolts at Tower Number 2. Weather at Mountain Station has grounded the helicopters on Mondays and Fridays more than any other days. One Friday Frank, with several of the contractor's crew, walked 12 miles to Idyllwild just to be home for the week-end.

Alex Singer took two weeks vacation in the last half of April so that he would be rested up for the final grading and paving of the access road in May.

NEWS FROM LISBON:

Our faithful Lisbon correspondent reports that the winter in Portugal has been unusually unfavorable for construction. In spite of this, construction of the Tagus River Bridge and approach facilities is well under way.

For the main bridge, construction of six of the seven piers has begun. For the South Anchorage (Pier 1), excavation has been completed to the top of the footing. Both caissons for the two main piers (Piers 3 and 4) have been floated into position, with concreting and sinking operations in progress. At Pier 5, the cofferdam has been driven, excavated, and driving of drilled-in piles begun. The footing for Pier 6 has been completed. At Pier 7, six of the twelve circular caissons are under construction.

(News from Lisbon continued)

For the approaches, five out of the fourteen north approach structures are under construction, and two of the eighteen south approach structures are under way. Roadway construction of the north approach has started. Construction has begun on ten of the fifteen North Viaduct piers, with the footings of five piers completed.

NEWS FROM LIMA:

The highlight of these past three months was Lou Riggs' visit during the latter part of April, during which he was continually shuffled from one office to another to convince various people that TEC is sincere about doing work in South America.

Our report for the fishing industry is still going through birth pains, but we hope to have all copy ready for printing before the first of May. Although the report will present an economically feasible project for waterfront facilities to export fish meal, it is doubtful that construction will ever commence on the structures as now planned. The research being conducted by the industry to convert to pure bulk handling, rather than using sacks, is showing promise. It is probable that any new shipping facilities which might be constructed will be solely for bulk fish meal in a pelletized form.

Close contact has been maintained with the joint venture German-Belgian firm of Hochtief-Sybeta, which has a subcontract to finance, design and construct the civil works in the Chimbote Steel Mill expansion program. Included in these works is the wharf for which we completed a preliminary report last summer. (See New Jobs and Jobs Completed)

Senor Otto feels confident that there is a terrific potential for other civil engineering studies and design, and hopes that the present work will prove the nucleus of bigger things to come.

ON THE HOME FRONT

Sic Transit --



The rapid transit program, although temporarily disconnected from its money supply, continues to creep forward. Each of the joint venturers has been busy laying the groundwork for future design efforts. Bechtel continues to study propulsion equipment and project scheduling, and Parsons to study subway construction techniques and route alternatives along the Southern

(On the Home Front continued)

Freeway in San Francisco. At Tudor Engineering Company, Bela Vadasz is directing studies for location in the Grove-Shafter Freeway.

This last has developed into something of a hassle with the Division of Highways over whether rapid transit should be in the freeway or along the side, so variations of both plans have had to be developed and estimated. Bela made his American debut as a public speaker in presenting these plans to various groups, and acquitted himself very well indeed.

Ray O'Neil continues to inhabit the joint venture office on Market Street. There, in that ivory tower of planners and prognosticators, he charts the route, right-of-way and utility program. He has also been observed making book on the rapid transit taxpayers' suit.

In reference to the suit, the consensus of District Directors and staff members, Joint Venture staff, defendants' counsel and similarly unbiased observers is that the plaintiff has presented a weak case made weaker by ill preparation. On April 24, plaintiffs' counsel rested. Two days of legal argument followed as defendants' counsel moved for dismissal. A favorable ruling on the motion was recorded on May 2.

Just to prove it is not idle, the joint venture office supplied the photo for this article. It shows one of the many equipment proposals under development. It is not a monorail, but color it expensive anyhow.

NEWS FROM technical computing center

An additional 20,000 positions of memory have been installed on our IBM 1620 computer. This raises total capacity to 40,000 positions. This has greatly increased TCC's computer capabilities. Another recent installation to speed up production is an IBM 083 Sorter which sorts IBM cards at 1,000 cards per minute. This is 2-1/2 times as fast as the old sorter.

The Critical Path Method business has been booming at TCC. We are now processing CPM for companies as far as Honolulu, Seattle, Los Angeles and Houston. Major clients using CPM service are Guy F. Atkinson; Haas & Haynie; Vinnell Corporation; Ets-Hokin & Galvin (for NASA); Welton, Beckett & Associates (for AEC); Bethlehem Shipping Yards. If you know of anyone using or investigating CPM, please let us know about them.

There have been several lectures by Bert LaVigne and Jack Orndoff on introduction to CPM, applications of CPM, and computer processing. Both Bert and Jack conducted a CPM Clinic at Cabrillo College.

NEW EMPLOYEES

William G. Huber has joined the Washington staff to handle special civil engineering projects. Bill has had considerable experience in hydroelectric work, his most recent employment being with British Columbia International Engineering Company and British Columbia Engineering Company.

PERSONAL NEWS ITEMS AND TRAVELS

From Bangkok --

Andy Lamore has taken leave of absence to work for Baker Wibberly Upham on a highway project in Thailand. He is designing many bridges. Not only will he benefit from the experience, but there will be an appreciable tax advantage.

Bob Thomas has taken leave of absence to work for Pacific Architects & Engineers, our former jointventurer in Bangkok. PA&E was awarded the design for DaNang Dock, the subject of a feasibility study presented to the Navy last fall.

From Lima --

Life in Lima seems to be quite different and most interesting according to Gloria Otto. They are making their third move in six months since they are living in "vacation houses" with two-month leases. The present one has a six-month lease so they will be there for a long time! The children are now in school and a school day is from 8:00 AM to 5:00 PM, and Warren goes six days a week (see how lucky you other children are). Gloria says that winter is now beginning and much rain is expected. Everyone goes to the mountains in the wintertime where it is sunny and warm. She may send Carl to the mountains for a short stretch since it has been discovered that "Miss Universe of 1961" is their neighbor.

From Lisbon --

Julia Conyers spent the last week of February in the British Hospital of Lisbon undergoing minor surgery. We are pleased to report that all went well and she is again spending a good portion of her time on the Estoril golf course. The Conyers family spent nine days touring southern Spain, and Tamea spent the Easter Holidays in Paris.

Gere Harwood was on the Cascais Women's Bowling League championship team. She received a handsome silver trophy at a dinner given by the league at the Ronda in Estoril. Bud entered the seamanship and navigation courses given by the Portuguese Navy to qualify "aficionados" for the licenses required for pleasure boating in Portugal. The "Patrao do Alto Mar" course consists of bi-weekly sessions on celestial and electronic navigation with six week-end trips for practice aboard a Portuguese Navy corvette, when and if the weather clears. The "Patrao da Costa" course offers, in addition to night classes, six Sunday sailing trips aboard the Navy schooner Sirius to teach the arts of sailing and coast piloting. Bud will take his exams in June and July.

Bud and Gere attended a party given by John Armitage, Project Manager for Morrison-Knudsen, for the caisson anchor setting crew. The party was contingent on putting all anchors in the river before April 6th. The anchors were in but Oral and Bob are a little suspi-

(Personal News Items and Travels continued)

cious as to just where.

The Wilkinsons have acquired a new Volkswagen and are looking forward to summer week-end excursions through Portugal and Spain.

From Palm Springs --

Tom Mackenzie joined the mariners with the purchase of his "yacht." Actually it is a 12-foot aluminum car-top boat to go with the 5 hp outboard motor he had. Tom should be ready to start around the world in it soon because Frank Paul presented him with a navigation kit, life preservers and a yachting cap. These were "left overs" from Frank's cruising days and just the thing for a 12-foot rowboat.

From San Francisco --

Bob Janopaul took his family to Southern California during Easter vacation and spent some time at Disneyland.

Alyce Storey spent her vacation in Chicago and Indiana and had every possible type of weather, including snow. She was happy to get back to San Francisco.

We now have another thespian in our midst in the person of Andy Lamore. Andy made his debut as "Gil" in the play "Janus" given by the Amateur Community Theater of Bangkok. Who knows but that the next time we hear from Andy, he may be appearing on Broadway.

And Mary Coker has been with the Lamplighters for over a year now and on May 10 is doing her first "solo" part and already has the familiar jitters.

We wish to extend congratulations to Tom and Francine Mulron on the arrival of Timothy, and to Vic and Vi Subbotin on the arrival of Randy! And while on this subject, believe that everyone will be interested to know that there will be a new little Seifert at the end of this year.

Many thanks to all of you who contributed news and time to this issue of the Newsletter.

You've heard of April in Paris; Autumn in New York; now you have August news in November

(If everyone will rush-rush and send in news items at this very moment, your editor promises to get the next issue of the Newsletter out on time.)
Signed: The Editor

A MESSAGE FROM Ralph Tudor

It is good to be back in the office and whether it was worth it or not, I do feel a great deal better for the rest.

I visited Washington recently and found John Marr greatly improved and while he is on a strict no-salt, no-fat diet (not even the olive in a martini) he looks and feels better and is carrying a pretty heavy schedule.

Dunk Brown has also improved a great deal but still has quite a way to go. The doctors are still reluctant to say when he will be released though he is now home.

It was good to have the office getting under full steam again after several months of being relatively quiet. A number of familiar faces are at the Transit Joint Venture office and there is an increasing number of new faces in the home office. It is a job but a pleasant one to build up for both the Transit and Merced jobs which will be active for a long time.

NEW JOBS AND JOBS COMPLETED:

Merced Irrigation District

On July 23, Ralph Tudor and Art Reitter were present at a Board Meeting in Merced when official authorization was given to proceed with the final engineering design for raising Exchequer Dam at an estimated cost of construction of between thirty to thirty-five million dollars. The first stage of development for the Merced Project involves placing a high dumped rock embankment in front of the existing concrete gravity dam, construction of a new power plant with an installed capacity of 80,000 KW, and the construction of other miscellaneous facilities such as a spillway, a power tunnel, a dike and an afterbay dam which will contain a small power plant. The planning and design of recreation facilities for this project are also included. Construction on Exchequer is slated to start on or before July, 1964. Design and construction of the second phase of the Merced Project is expected to follow soon after the first stage is under construction. The second stage involves a high rockfill dam at Bagby and an earthfill dam to form an irrigation reservoir at Snelling.

New Don Pedro Project

In May of 1963, the Water Resources Division, under contract with the City and County of San Francisco, carried out a series of studies to review and evaluate the engineering and economic aspects of the New Don Pedro Project. The project is a joint undertaking of the Modesto Irrigation District, the Turlock Irrigation District and the City of San Francisco. Preliminary project plans call for a high rockfill dam with a 150,000 KW power plant located about 1-1/2 miles downstream from the existing Don Pedro Dam. The review study was completed early in July and submitted to the City of San Francisco.

In the latter part of July, the City of San Francisco expanded the scope of their contract with Tudor Engineer-

POET'S CORNER

by Bob Repp

We are working on the subway
All the livelong day
We are working on the subway
Just to pass the time away
Can't you hear Ralph Tudor shouting
Get up early in the morn
Get up early in the morning or you'll
Wish you had not been born!

Get the trains all arolling
Underneath the Bay
Get the trains all arolling
On the BART right-of-way
We are working on the subway
All the livelong day
We are working on the subway
Just to pass the time away!

(New Jobs and Jobs Completed continued)

ing Company to include an engineering master plan to determine the most suitable recreation facilities to be developed in conjunction with the New Don Pedro Project. Work on this phase of the contract is slated to begin sometime in early August.

Oakland

On August 22, we submitted a study to the City of Oakland covering generally a review and analysis of the tentative traffic circulation plan developed by the City, a study of alternatives at critical locations, a review of the reasonableness of cost estimates for land acquisition and construction, a review of recommended stage accomplishment of elements of the system by logical project groups, and conclusions and recommendations on the above.

INTERESTING EVENTS ON CURRENT JOBS:

NEWS FROM WASHINGTON:

Direct quote from John Marr, "All's Quiet on the Washington Front."

NEWS FROM PALM SPRINGS:

The Palm Springs Aerial Tramway is now operating (under test, adjustment and inspection). The contractor's crews commute daily to Mountain Station and intermediate towers via the tram, and a certain amount of freight is hauled both ways. The first car to travel up the mountain was on June 24 and the uneventful but historic trip was made by none other than Tom Mackenzie of TEC and Bill Jones of L. E. Dixon Company.

On July 2, Ralph Tudor and Stan Froid made the trip with several others and Ralph got his first look at the towers, Mountain Station and the view. He was properly impressed, to say the least.

The tramway opens for public use on September 14 and everyone is quite busy with the final finishing of certain items, paving the access road, etc. The "Opening Ceremonies" will be on September 12 with Governor Brown and several VIP's in attendance. Many people are paying \$1,000 to \$1,500 for the "first" ride and the money will go into an advertising fund.

NEWS FROM LISBON:

Pier No. 4 caisson (the North Tower Pier) was successfully landed on the sloping upper basalt about July 9, 1963. The involved details of the caisson sinking schedule which guided the contractor through the difficult construction and landing of this pier were developed in the San Francisco office by the team of Bob Janopaul, Rainer Rungaldier, Yin Howan and Paul Potter.

The fit of the irregular shaped cutting edge on the upper rock was remarkable in that the top of the caisson ended up with a cross slope in the N-S direction of 1/500 and in the E-W direction with a slope of 1/450. The four corners of the cutting edge, starting at the northwest corner and proceeding clockwise, have elevations of -97', -78', -73' and -90'. Much of the credit for carrying out the painstaking details necessary to achieve such results go to Erwin Rungaldier who interpreted the rock contours from the boring data and laid out the shape of the irregular cutting edge. The nine interior wells of the caisson were tremie sealed on July 15 and 16. The east end was sealed on August 6 and 7 and the west end sealed on August 16 and 17. All foundation tremie seal work is now complete on Pier No. 4 and completion of this pier is now a matter of a month or two of concrete pour operations.

Pier No. 3 caisson (the south tower pier) was landed on the mud on July 22. The sinking schedule for this caisson was also engineered by the same team that developed the schedule for Pier No. 3. When completed, this pier will hold the world depth record for suspension bridge piers with a founding elevation 260 feet below mean sea level. The present record holder at elevation -240 feet is the tower pier just east of the central anchorage on the San Francisco-Oakland Bay Bridge.

In mid-August, Bob Janopaul went to Lisbon to consult with Morrison-Knudsen personnel on the construction procedure work for the main piers. Of primary interest was the critical stages of Pier No. 3 caisson as it penetrated through the upper reaches of the river bottom muds.

It is now summertime in Portugal and along with the increased temperature and lack of rain, construction of the bridge and approaches is showing rapid advancement. Piers 3 and 4, the main bridge piers, are well under way. The excavation for the south anchorage (Pier No. 1) continues. At Pier No. 5, 15 of the 58 cast-in-place piles have been concreted. The substructure for Pier 6 is completed. At Pier No. 7, 7 of the 12 circular caissons are in position with 5 sealed and the remaining 5 are in the sinking stage. For an overall estimate of the main bridge substructure, we could say that the job is about 50 percent complete.

The approach structures are also showing considerable advancement. At the north approach, 8 of the 14 structures are under construction with one completed and for the south approach, 9 of the 18 structures are under way with one completed. The North Viaduct is also showing a lot of advancement and at the present is perhaps the most visible evidence of the new bridge with seven of the pier columns under construction or completed. Work on the box girder cantilevers

is now beginning. As a general gage of the approach construction, we estimate that the approach work is about 20 percent completed.

NEWS FROM LIMA:

The report for the fishing industry was finally printed, delivered and, heartening to say, well received. The industry is continuing its efforts to find a satisfactory method for handling meal in bulk form. We probably will have to wait until research has found a solution to the problem of incipient combustion before expecting further work.

Unfortunately, the design project for the new steel mill wharf is being delayed because a decision has not yet been made by our client on the general layout or type of construction. Meanwhile field surveys and control nets are being completed and discussions are continuing to develop a set of design criteria.

The big news in Peru is the successful election of a constitutional president who took command from the military junta which has been ruling since July, 1962. Peru's "4th of July" celebration on July 28 was followed by two more days of fiesta. The flying of the national flag from every building and home during this period was mandatory and certainly brightened the scenery. There is a great deal of optimism that many delayed projects will now be unwrapped and a boom experienced in construction. Based on the past record, it has to be a cautious optimism!

ON THE HOME FRONT:

Rapid Transit

A few TEC "old-timers" have been assigned to work for the joint venture control group for the design of SFBART and known as P-B-T-B. Ray O'Neil is Chief Location Engineer; Sam Seifert, Specifications Supervisor; Fred Madigan, Utilities Engineer; and Keith Bull, Structural Engineer. Most of the "exiles" have been playing "musical chairs" at the 25 First Street office with Bechtel personnel. On July 29, P-B-T-B took over the entire third floor and now there is no "playing." Although the girls at TEC are the very best (the men were afraid not to say this since some day they will return to the fold), the exiles are enjoying getting acquainted with the new secretaries at P-B-T-B.

Ray O'Neil has forsaken the "City that knows how" and moved to the country (Orinda by name). His pallor has diminished noticeably. His house will probably triple in price when R/T is built. In the meantime, he is smoothly talking everyone into selling their property and leaving California. Sam Seifert is barely visible behind a pile of subcontracts at present. Fred Madigan has discovered there are other utilities besides PG&E and S. P. R. R. Keith Bull is having difficulty deciding whether to use pile trestles throughout the job or just build the lot on fill.

A Federal grant of \$4,886,000 has been awarded to BARTD to help finance its preliminary test and research program. Representing two-thirds of the test program's total cost of \$7,329,000, the grant was approved by the U. S. Housing and Home Finance Agency from mass transit aid funds allocated by Congress under the Housing Act of 1961. The remaining one-third will be supplied by BARTD from its voter-approved bond funds.

Under the joint research program, the District's engineers will conduct studies aimed at further improving the design of lightweight rapid transit trains and equipment--including many new concepts for propulsion and power equipment, sound and vibration reduction, track and roadbed construction and structural design.

The studies will be carried out on a 4-1/2 mile test section of the Bay Area's planned 75 mile rail network, which is to be located between Walnut Creek and Concord. Operation of the test track will begin early in 1965--a full two years before the first BARTD trains are scheduled to start regular commercial service.

Results of the research program will not only be incorporated in the design of the Bay Area transit system but also are expected to set the pattern for rapid transit development in other cities.

Calaveras County

Work continues on the Calaveras County Water District Project with the Water Resources Division directing the main part of their efforts toward preparing Calaveras' Federal Power Commission Application. The application hearing is scheduled for September 16, 1963 in Washington, D. C.

Working on other phases of the project, the Division completed an engineering and economic report proposing a \$1,000,000 domestic water supply and transmission system for the County's Ebbetts Pass Road Area. The report was favorably received and the orderly progress was made when the CCWD formed the Ebbetts Pass Improvement District and laid plans for an early bond election.

The legal efforts to clear up Calaveras County's Water Rights on the Calaveras River continues. Final arguments were submitted to the Water Rights Board when the District's Reply Brief was filed on July 15. Decision by the Water Board on the District's Applications is expected sometime within the next six months.

Those associated with the Calaveras Project noted with deep regret the passing of Mr. Vernon Campbell, Board President of the Calaveras County Water District. Vernon has been the spearhead for the CCWD Development since 1946.

ASCE

On October 7-11, 1963, the ASCE is convening in San Francisco for their annual convention. Highlight of the annual meeting will be a Structural Engineering Conference devoted primarily to structural dynamics. Professor Clough of the University of California is chairman of the Dynamic Analysis portion of the program. Due to his involvement as an earthquake consultant to Tudor Engineering Company on the Tagus River Bridge, he requested that a paper be presented outlining the seismic analysis work that was carried out for the Main Piers of the Tagus River Bridge. Plans are under way for presenting a paper authorized by Louis Riggs, Stanley Froid and Bob Janopaul which is entitled "Seismic Analysis of Suspension Bridge Piers." Also planned for inclusion in the ASCE Conference is an exhibit from TEC depicting the design and construction of the Main Piers for the Tagus River Bridge. Behind the scenes at the ASCE Conference, you might also find Bert LaVigne and Sam Seifert.

Bob Janopaul joined the Water Resources Division on July 8

to take over the duties of principal assistant. He stepped into the job just in time to meet an expanded program of work which, together with assimilating and absorbing all the various details of the programs that have been under study the past five to six years, makes it a tremendous responsibility to pick up in a short time. As of this date, Bob has risen to the occasion and is taking it all in stride. There are busy days ahead for the Water Resources Division.

During the latter part of July, we had the good fortune of having Mr. Henri Bodmer of Von Roll, Ltd., Berne, Switzerland, visit our office. Mr. Bodmer is the Von Roll Project Engineer for the Palm Springs Aerial Tramway and is currently supervising all installation and tests of Von Roll supplied equipment at the site.

Unfortunately, Mr. Bodmer's time here in San Francisco was quite occupied and only a few were privileged to meet him. However, if current plans materialize, he will stay in Palm Springs for a few months to train the staff and we may again have the pleasure of a visit by him and an opportunity for all to hear of his experiences with tramways.

NEW EMPLOYEES:

The San Francisco office is now hopping once again and several new employees have been added to the staff. Sabine Thureau was formerly with DeLeuw, Cather; John Czechowski has worked with Earl & Wright and International Engineering Company in the Bay Area; Roger Hastings is working temporarily and was with the Southern Pacific Railroad in Arizona prior to coming to the Bay Area; Bertold Pfeifer came here from Munich, Germany; Dick Fischer was working with Capitol Engineers and AID in Vietnam before coming with TEC; Lars Schon came from Malmo, Sweden; and Dave Heilig from Cedar Rapids, Iowa.

It was good to welcome Frank Gawin back to the office as it was Dixie Tomlin and Bob Mackenson. Bob is back for the third year of summer work with TEC. This may be his last year since he will graduate from Cal next year and plans to practice architecture in Sacramento.

PERSONAL NEWS ITEMS AND TRAVELS:

From Washington--
Bill Bowen has taken a two-months leave of absence for a special consulting job in Rio de Janeiro.

From Bangkok--
Bob Thomas moved his family into a new apartment with a swimming pool and says the morning, afternoon and evening dips really satisfy.

Garretta Lamore is exhibiting her paintings in the Bangkok Gallery and received a very nice write-up in the local newspaper.

From Lima--
It is rumored, via the Froid grapevine, that homelife for the Ottos in Peru has its titillations. Some of the hazards include such things as garden hose mysteriously disappearing plus other household effects not under lock and key. Some girls will have an all-day shopping tour but Gloria's adventures with such

delights find the necessities of living have apparently tarnished the glamour for the present.

The Otto children are enjoying their mid-year two-week holiday now. The family is entering into its fourth month as a unit in the same house--a wonderful experience. The winter in Lima is turning out quite nice--there were some 36 hours of sunshine during the first two weeks in July.

From Lisbon--

Oral and family made a trip to the United States and home during August and Oral visited San Francisco. After three years, they really looked forward to this trip and thoroughly enjoyed themselves.

Bob and Jeannine Wilkinson are enjoying living in Portugal and learning about the country. Their plans to tour Europe are yet to materialize, but they are dreaming. Amanda, they regret to say, is managing to learn Portuguese faster than her parents. (That child will get a job in Lisbon yet.)

Gere and the young Harwoods have been able to spend a good many days of the last quarter at the various beaches in the Estoril-Cascais area. The Harwoods are planning a move to the Cascais area on the first of September. Bud passed his examinations for Patrao de Costa and Patrao de Alto Mar and has received his licenses for both from the Portuguese Navy. This will entitle him to the privilege of being drafted into the Portuguese Navy at the discretion of the government. His 10-meter sailboat is scheduled for completion after the first of September--then off to the high seas!

From Palm Springs--

The Mackenzies are even enjoying the 116° temperatures in Palm Springs and they will probably turn to icicles when they return to the Bay Area. They are looking forward to a long vacation starting about October 1. That is, if Tom can get Barbara away from her many organizations--the latest being temporary President for the Cochella Valley Mental Health Association. And Tom managed to sneak away from his paper jungle to catch his limit of fish in the Salton Sea.

From San Francisco--

Hans, Lois and David Pokorny vacationed in New Jersey for three weeks visiting relatives and friends and enjoying themselves.

Erwin Rungaldier spent a week in the high Sierras hiking and camping at company expense. How do you get a vacation like this? Actually, he was carrying out a reconnaissance survey of six reservoir sites to determine recreation potentials for the North Fork of the Stanislaus River Development Project which is a part of the Calaveras Plan.

Louis Riggs and family went to Lair of the Bear for a week's vacation and Louis reported they had a wonderful time. He returned to the office quite tan and looked rested.

TEC's "Paul Bunyon Group" spent a week-end during May at the Russian River area trying to prove this modern and easy living had no effect on their stamina. Fred and Eva Madigan, Bela and Eva Vadasz, Papa and Rainer Rungaldier, Vic and Eric Subbotin, and Hans Pokorny (all in canoes, mind you) started at the Asti Winery and two days and thirty miles later, arrived at Healdsburg. Fred

and spouse, Vic and heir, and Hans had a wee bit of trouble like capsizing and getting an extra bath. The "Group" finally made it to Alexander Valley where food, dry clothing and stimulants were gratefully accepted. We are happy to report that everyone survived!

Due to circumstances beyond his control (a direct quote from Don Bruzzone), he was unable to attend the company picnic on August 18 because of a prior engagement on the 17th with a certain young lady (Donna Dooley) at St. Emydius Church in San Francisco. Congratulations and very best wishes, Don and Donna!

The Helgessons now have all their family in this area since Alan and Llyssa have moved to Mountain View and Alan has joined Melabs, Palo Alto electronics firm, as engineering specialist.

The pneumonia bug (if there is such a thing) has been flying around the San Francisco office. Don Yamagishi was home for two weeks and Ruth Mattox preferred the hospital to home (believe her doctor had something to do with this decision). They are both back now and hope the old bug got lost far from here.

Bob Repp, thinking he was another Willie Mays, rounded third base with the winning run in sight and fell--or was pushed--but managed to make it to home plate and scored said run. As an aftermath, surgery was required to insert a steel pin in his right shoulder. There must be a moral someplace but Bob hasn't decided what it is. Incidentally, the "Fathers" whipped the "Sons" in this exciting game.

Mary Coker's moving around seemed to be infectious and on Memorial Day, Alyce Storey and Maxine Calnon moved. Alyce moved one block up the street and Maxine moved into Alyce's former "adobe" all in one day and confusion reigned. Gloria Pinell and husband helped them move and Friday was a pretty sad day around the office for there were three tired females.

It's nice to know that our country is being protected--for at least two weeks during August--by Bob Repp. He left the office one Friday evening with flags waving to go to "camp." Really, Bob is a Lt. Colonel in the Reserves and spent this period at Camp Roberts.

On August 18, the annual picnic was held at the Tudor home. The weather was perfect; the food, as usual, was absolutely delicious; the atmosphere completely relaxing. There were some pretty exciting games of croquet and hardly any smashed toes. The most popular activity enjoyed by most of the people was talking and getting acquainted with each other.

We had a few different faces--such as Oral Conyers who actually was wearing the same face, but it had been a long time since he has been around these parts. Also representing Palm Springs were Alex Singer and his wife. There were quite a few persons missing--what with vacations, business trips, illnesses and military leaves. We missed Pat Riggs this year since Kathy decided to get the mumps the night before.

It was a delightful picnic and so nice to see everyone that we only see once a year.