## UNCLASSIFIED

## K 2 -7992-1



## Theodocumest dobseoteontain UCWil, LCl, er eific uncisssilied aensitive Ifformation and has been

 approved for releases to the pibslic by:23 花 $h_{14}$ EIfP bitornation Control Olice Donto

UNCLASSIFIED


UNCLASSIFIED

## COUNTING HOUSE CARENTAR 1943




```
J.H.ARNOLO,
    Director;
    RESEARCH &
    DEVELOPMENT,
    THE KELLEX CORPORATION
    & SECRETARY TO
    "THEINTERTGROUS/"
```






UNCLASSIFIED man

UNCLASSIFIED
Firtectaryu

UNCLASSIFIED

|  |  |
| :--- | :--- |
| UNCLASSIFIED | UNCLASSIFIED |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |





Talhed over personnel securith wiblurrain in morncing Atterided inecteng, at Bell Laboralory on subict of baries from $10^{\circ \mathrm{Lam}} \mathrm{Am} 5 \mathrm{PMM}$. Su notes for deaciaions of sroup. Talked at lingch worth Dentach fhour on $\alpha$

UNCLASSRHPREX 4 JANUARY
Day:
$=$

Worked morming al Geroeg-city. Talhed ts. Bene dict on organization
and flumrucathoms.
met Devitoch at hea Yod Offer woo Am. Spent hour wir his He es to go \& Arentungtan thes evencin, Tallad $A$ OCK about organyation Usite el Do. Mercia wrok mor. Kwod had hunch at Broud afclange lldy Tallad about ditem. Kechel's sole in projict

Citindel conference in Fur. Keizh office urd te nar (Loiry, Spain, boibleday). Keva Auscri, Kelligg, Johusan talked weedent muct effect.
\& hour on $x$.
Gsued t intact o Qumning
of $\varepsilon_{R}$ wioled - Twe day mumin?

TUESDAY. 5 JANUARY \%. OUNCLASSIIED
trothed in G.C. ì morning and afternoon. Telephomes ont.
$\nabla$ alhed $t$ Kumtganey. Norle bi wably reppot shos on $x$

Spent untere day in gersey.
$s \ln 0 a x$

Apent maning in garsery:
aftomom is the yorl-confereace wich Enallon of teremer a-Cicmun
1 Clarth - Kewh + Banitar an: In-Keité ffice Andject-compreans.
shere on $x$

Apent remasides $f$ aflionon in
cubler 1 unining and coked if he kun tlor. Llavom (one Ex how appointiment wich) the didu't


| tia tussoay 12 January mom | (13) Janvaxyz |
| :---: | :---: |
| UNCLASSIFIED |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  | - |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| UNCLASSIFIED | UNCLASSIEIED |
|  |  |

$\qquad$
$\qquad$





| THURSDAY <br> $28{ }^{\text {january }}$ | friday 29 january: |
| :---: | :---: |
|  | UNCLASSIIEIED |
| UNCLASSIFIED |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| UNCLASSIFIED | - UNCLASSIFIED |
|  |  |



|  |  |
| :---: | :---: |
| UNCLASSIFED | UNCLASSIFITES |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  | - |
|  |  |
|  |  |
|  |  |
| UNCLIASSIFIED | UNCLASSIFIEP |
|  |  |


5 FEBRUARY 41st
Doy. 324.Days
10 come

UNCLASSTFIED


SATURDAY $13 \cdot$ FEBRUARY 321 Days
to come to come

UNCLASSIFIED

## UNCLASSIFIED

|  |  |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| - |  |
|  |  |
|  |  |
|  |  |
|  |  |
| unctassified | UNCLASSIIED |
|  |  |




| TUESDAY <br> 23 <br> FEBRUARY <br> 54h |  |
| :---: | :---: |
|  |  |
| . . , |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  | . |
|  | * |
|  |  |
| - . |  |
|  |  |
|  |  |
|  | . |
|  |  |
|  |  |
|  |  |
|  |  |
| $\therefore$ AMEASSIFIED | UNCLASSIFIED |
| $\therefore$ UNCLASSN |  |
|  |  |
|  | (ex er der |


|  |  |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  | UNCLASSIFIED |
| UNELASSIIED |  |



| monday (1) Marche mem | $\text { TUESAY } 2 \text { MARCH }$ |
| :---: | :---: |
| UNCLASSIIED | UNCLASSIFIED |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| - |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  | UNCLASSIFIED |
| UNCLASEED | ?ay |
|  |  |


FRIDAY 5 MARCH



INCL ACRED

|  | $2)^{\text {tursoary }}$ (18) march |
| :---: | :---: |
| UNCLLASSIFIEC | UNCLASSIIELI |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| UNCLIASSIFIEP |  |



(THURSDAY 25



Discuencel plegrongeen
UNCLASSIFIED Aegereation facto with Doectsch, Preceediet, Qohnson. Object: to promelgate progeceres for Columbia.

Taelel wath Qidley about terminotion of ASRD comthect.


| $\text { SUNDAX } 4 \text { APRLI: }$ | $\text { MONDAY } 5 \text { APRLLS }$ |
| :---: | :---: |
| UNCLASSIERED | UNCLASSIFIED |
| : |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| UNCLASSIFIED | M, |
|  |  |
| 3-3 | UNCLASSIIFIED. |
| - ferseycity |  |


 phee on combination cectirifige ane gas differsion plact

Treles with Petait an progeave iv his abserele Agreed to ply to Floada firet of vest meel.

Tachen with Bules in ofternom- he phogfare

Delcivered to gridley ale meterials oubintecetiativg eutres for Reberts condract ove Relest pielerontrects.

Discurice the states of the Secioriel Electrie condract S.dley ageed to cale Bonsect

Taenel to keich by ghone Agien to meet hive ien woshiregtom Friday aghil ib.
actaceal mectrieq weich wole. Browste. Factz oun Ponedict Discures Lealeieq-of conetrifergel premps thy ievecteage ave EPy ovet Kelage. Uese decision to use nithager inlichege.

UNCLASSIFIED

Conducetal meation on cleaning ofequipment. w.K.Lewis attanded, with Ors. Dummer + Libby of the
Colurebia gpasif.
Time of meating 10-oue to $12: 30 \mathrm{am}$ Minuten to be covelen ive a repent menecraudeme


WEDNESDAY
(14)

UNCLASSIRTED
Discuesed with Baber the speciprentions of the oclinChalanars premps asel obtrived agreerenont that seceprections as set foreh ie lurates memeraveduin woren be used aloo diocruel wit Bober ramificetioins of dey nitiogere rieresis dry ain propection - Keclogeg ail Caibide methads.

Tachel to keioh by phove - ogeret to meat him on hashington Friday wering.

Q Drseensel mechenism-p Hecerieq io contract. with Zanne are Gitley sug-gentad CD-ordinate like Finche. Suggestion Checeived fromety. S Disentive save with Baberrecciusd fandanle sefly ite statel he han juet the men- luow wich G.E

THURSDAY
$V$ sited cheipleci coep: reehe wieh keden others inncernieq (1) proces feotruen (2) pustienopu equipmect derign (3) facieition required, arel (4)iconthactual matcels, Visited laboratrreis quects imgreved.

UNCLASSIFIED
Detroit



TUESDAY
110th -
(2) גprio..

UNCL SSIFIED
w)

Prescirtas Q.deay w.th lecter on Rebute eateracion ite.
(2) cortooded reggela ieven-gang ventring.
(3) Hat lweech wath theer of lientinghause.
(4) Trehel with Pouress, vectroducieng hien to gerenal priceceples of oroject and his job.
(s) obthrided vecoticeq on coclavet. Decitel to hour Penoia ieventigits reoatior cegacities of duepont facilities for Cuig one Csib. oeso to hour Bereadiet atioly what is involved ies obtoereiven vecssenery dota for denisp of ena-jekatior type coolses.
(b) Spent swenong introdeceing Smith to pieveiples of precose
poleredes filet moming veseron of Houdaille- Hereheyi mectiviq on contructo

Trelles to Staneres on riegeet for o.SR-D ane Qere. Def contract. He is to consider. saces fuxther.

Taelel to Powere. Qgeed to hour him 80 to Columbia tomerroul

Taelen to luebb on heprocarbon sepothesis, Seggeites he cicely revesel wethods of hydrogen formation and co formation

Reviewed invertimes verder O.S.R.D.

THURSDAY
119 th:
Day
Day
UNCEASSIFIED
Canoe W.K. Lewrs at M.II, there at Betan Rouge-was lenacle to locat him at either pount.

Teelel wirt Thiels abait co grevenation. Discwind correlation of sepn thesis Rota ace manepacticat of hypdrogen wirh luebb.
Visitad Dr FEC.

Itenckey at Hawemsyer Hels, verewed aced disensued electoolysis eeels.

Taelel to Primmoer alinict Keled reagorasibility on rhis per ject.

Callel Lewnsat Baton Range He stated he wen unalle to neleres moore for our-paject lecenere of commitmeeres mats previonidy by tottel.

Callel machether at Batonflarge arel arkes heve for The best wethed of givosieg in treech with Smith. the seated he woele talk to Cecil Broum ace that it worees $b_{E}$ all rieght foruneto call smort dureedy Dre seturday.

UNCLASSIEIED
 tielverkesth's retures.

Níatyith Qpouse anel othens at Weshate ave Distriet Office aece breply diseresed peredereepeatol erobleves of lange gonce stel nequirineq salution (مce minutten of thie dats).

Taeked briefley w.rh Keich aboent mextieng at Ceachentaer District Offec and abract gowenel problivis. uedective sepnthenin of hyprocerbons. Il
H Mret wirk Secrevea Whensel osen leneer arestacked abbect Fipecis chereven in requirz mont \& lasge placet. Ponsede. to Buemen Revolueseal for firet tiener ouk Iateat estimates of coolent anquire? cenent ( 150,0008 genms of ligund coolant) Rent encephesized that thene frgerar unene stiel preluminahy ued it ureq passicle that wr might nquant goet if the coolost as C-4is.

Cuterened negulai wesbly cooff mecticip

Hai lwerel wath Keith ares Running oerd disececeed
incti far quoues on pleqginq, ete
Discreven sid seres lxiten with Deemming acel weote fiut haef op initial dreft there collabbeketed wath Devining on secmend haif Pencewied entie keten with Keied ace 0 cmigosed ofrecel dueft.

Hel dinver with Neich ared Drenning. Taelento Kiect alonet sefortheri seaction Argeed to confrer Kelon vitencet to sypothenis reactor acel neceucky $\frac{14}{6}$ systree- Aleo ageed to inventerte ehenf prodrcetion of spathesis of R

Dincuened feeability op y earryciegoset hydhogerestein of equip vecet at $600^{\circ} \mathrm{F}$ at sitc. Kiech, Fentack, Cesten, Posven, Oreael-len With's -re.an

Cuevel Thiele aerd eapleined Kellet reiponsibutity in synthesis p-lot plocet.

Hat syectil leves ifr Iser. Prover del vered, to hichols at Perevi Station
livat inath Col Stoinese, leajer Richoff acee Boriediet, aned discuried coisent nequisemorets ane apecipreterici for large plact.

Secet cefry op concenfupe werearesdren to Dr. Urey. at his nequent.

THURSDAY 29 APRIL:
UNCLASSIFIED
Tackel to P.dely abroct Pabents caretect.

Tachen with coreyshar goent on testieg of nichelofetes setel spermens, ete.

Dincereree Sterlington date w.th Webb.
lueste leoren of wetect for continuetion of Qurericer buechere Deferen

FRIDAY
180th:
Day,
UNCLASSIFIED
Tactel with Q.O.her, Precelcet, ach others, aboest gorsobilty of hoever hiek do some wash at Geriey city

Tecepl to lueble abrocet desigen of sepn thesis unit

Obtaíech fiom montgomery a socereces thet lentive of intact were bring pect soldieng consrivi Robet: wewumb at ferney City ane thet chargen were. beieq regregoted.
at 3 pm , acreeded sfecial Chonacels mectivg ot Meaphathery bistrict upfice (couetel by minectes).

UNCLASSIFIED

Sjewt greeton gant of ueroning diseenesing instreweictation of placet ore procerselioet of instrumenta, with Neich, Boten, Wheelen, ace Becrediet.


Visitad laboratery aced noees bivildieg deskieq lerekningTaeben to Westben of Chiegser are Simith owe Poshar abret nielel-jootrieq carbon ctel.

Disecesen w.th Prient. Athecsom ace Aerredict onjpariucietal profgocer fior prosing nieheo-Rates otcl.

Pinceresl caapcent nequisceverets w.th Ronear ored A.Dedict one nergofoted Aeres icet go to lol minglán wirh Rocrea in mouloy

UNGLASSIEIED
\% dey ferney cirep

FRIDAY $5 \%$ MAY
UNCLASSHPED
Stentes carcelaction ainggentes bey len Keich, siegoieq r-ate of 1, bued pradection, livenk velocicy, aned hychogere coriecectratione for the seynthens necetrin oces aperd to inueitieste the heat thounpen peablares of a pecben tower ar pebble toppr fureances. Taches to foldierq about his estiventes of extras for recered O.S R.D. Coverect. Hz premises to furnish ad ditioual Lote by Leoseday Casel Sidley Rect was uevable to coutaet him.

Dieceree biefly with lus Keich weed fore neniven of the unatenials of constacetain of the differeeh and oretlined to hiciepor prosjectes enfenimemtal gengener tom nache gentavedbinn steel.

UNCLASSIFAED

UNCLASSIFIED pouct aied papgeste8 he contost us on Wea, tieay 12 abresces viectieqjive coriferevec nom, on enledtion of unetricels. of construction.

Trelel unth len keid abacet tint feoor Cgreed w.th his sergegtion that SB.Sonith be affointes co-adireation, Subrequeretly tacked with Krich ace Bukek Bolew aid Smuth,ene there Sm.th werd luoutegomery about oigenisation lies an ounsotion charet drawn on Serectay as baris of disceussion.

Cheri Pideype Robetat coutrect-wos uenable to contact hime-

Taeket uriefly to Keich about syrtheris carlelations.
"131st
-Day
oclereded porceru s. if veretieq ie mornangdirencisel wirh Poneme peredict: lotent Duepont neserets acel oeer weeds far cooenects.

Deciden ugoncestairs wark to be doere by tho percens division arel the percery city graep
acterded elecicieeq neeteriq in apter woon-
spent suroning disesuinerg tent feces ognurization w.rh smath.

12 MAY
St. Joseph
$\qquad$

THURSDAY 13
MAY
UNCLASSIFJED
Disencer orever kequerevect of $K-25$ foent woth ler. Wecith, shaq Paber aen othersare alre yorrible rue of gebbo. fereace

Visoted Babeoche aco ${ }^{\text {Wil- }}$ cai goont af Payonine aces obcerued pebble fukenece pelot poont luet L D christar, MII 31 , Who has charge of pabble maneare facterse. Pebbles aro made-panese Geargia elay and have a sefbeniviq g-int sheghety ableuta200 F Chrestir thice the stockieng pacet cas be Raised newesel hecedred Regrees.

Discuncel joisble fureree with Kench

Peunewsd exganizatein of tect teoar gang-w.rh Smith ave promisel to reuise chat Eevey uet wesk:

Pode to Philadeffhea with Keich ared dicensed Qyothenis prograre. Out of pochet cost of trip. $t_{6} 27$.
C.eles kecescel abrect Suoplevient leo 3 but was velable to reech Rein.

Dricureel Aefonthenis correletroies wieh keich acen kearicured lereg peacet decieg with Liebb acea others.
leereder-continued
forwhich the Collumbia oresp negient aporogereteon fiom The Duncif at me keced's peegention agreed to consida this prospace ive detail aed prenect cmmeret at a weectieg to be feed on hesneoderp.

UNCLASSIFIED:

Weet wath Keich Baber anc lemitginarey ased dírevend gruven gever otion eque gincut fortent ponect. B onen somech. aren lecontygmerey ageed to discens the snelject further are to initate inguiriees for procerrecerect of mator gevereTos aere tur boggearetor units; aiming at alneesst ummedrate deleciel Trio alo agfed to consider possibieity of Tantivieg hestringhrues blocesers uning bo cycles pore high line.

UNCLASSIFIED
Sofert afterucouct rewrewing Columbia prograve

Qeteredes negulet se of recetring

Colles hounel ores leareed that he hoo neemmeredel that Dr. Steurabt agerive negrects contaciel. ie kur theifls letter of may is for ev peecdi tueses Meider O.SR.

Petwreed to office in aftencerve ared acteseded: veectieg ore Coluecbia research groegreu-

Wrete lectei one Colverbin proggace

Toeker to Neich aved Somith abroct spece nequitcuever at qesney ciey Agead to peoveree. disecersion Fr.idey mornuing-

Qegeed to tole over the responsibicity of forishing Pricidicegs ot Qersay ciey.

UNCLASSIFIED

FRIDAY 21 MAYGA8
UNCLASSIRAD
pequire vevert tor heneereh ers developrevent porep at ferrey cily aese ot the lene Preildieeq in lou Yockweetieq arecedes by Neith, Somith Preerdict aece Qreald

Qctereded weectrieg at kerhootare Dishect office at nequent of Col. Creassheus, to disevers our nequere werito. for lube al inartuess aced. coolort eharactenisties. Weartion atceaded by clecy of der Pont. Ponee. Wote nees othere.

Trebee to Neich leriefly abaect sernthasis corredation Wiech act $360^{\circ} \mathrm{F}$ an isistial reactiontererfencture arel $430^{\circ} \mathrm{F}$ asmonomum tolerable teneferaturs. There are entalyst pres pors treeferntures UNCLASSIRIED.


Sgecet wearning iec fervar City as oftennou in kowlork straightening ut bect odieq contracto ace thejieng to schedecle presecet oominitmenets for finishieq oyg
acterded peguler soff mecteing:

Disecemel berpthesis at keegth with ler keich. fune :

Dinouncel tret feor wich Binnen. Smeth aud Keich adpransd peagare as pet tarl in Som.tis mamonacedum lue Neich stated wat on anoll oumpen m.ght be done at the lease Bueildrieq.

Discuned intsrement denclofuenet anel prociereancot and ageed to grepake neeomanevedatuis tor lut Reich.

27 may
UNCLASSIEREG
147th:2
Cous-dered liquad serothesis pijetree w.th lus Kich aeso deser bed thermodynanie celculations of total seystrer are agreed to wabe calculations to sewseal proeens schsuers

Ocquacietes leer Keich with lalest information on coolaect situettion, ard he reeggested $Q$ consseet C.e niehols are Col Creaestrens ou Friday-

Tackel to ceft
Resemoer aeed agpeed to viset District office oic. Wendey, Miay $3 i$ to acquaiet col Rechoff w.th lacest idees in coolaret
luede decesion not to $\sin f$ ifit pection -3 of pilect.

Obtacierd nicleceq from Dovere that orectiver coued be gaid to Aerach on fixied prece contract grovided gremiem wages did not exceed those of Execetiuz Order le. gr40.


Obereded neeetrieq is Prueni office on clocinieq aed testieng progpace. Agferd, iv len $K$ rich is o bresect thet Chriysler shaceld bs nequentrd to peovide faceleliss for enstiging oect thephogevention aced for fourenation ore finct fow cinits off lene. alas ageed thet mitiel forchecatiore of pevecieder of unita uright be carsued out at detaoif ip data to be obtincerd in the ceent feer ucouds ierdicentes the seach a percedena is alvisobk Decided a fourneiation at site wall bo asprectialicearey case.

Otevidel neggen stapf vectuig in verosucieni
liect unit shay onel Tratel ue aptennooce oied agued to btacie cestajue - Porcuatoir for theer tober werecerae dum by thodel

Calece Is.dery abré O.S.D coutrects horhiesg done as get athen therigs, diseenied Prinecton contract ous folbibleter of areery or Clumber eielacieg kash bueldieg $L_{0}$ dreision on the loters. Neters of $0, \mathrm{R} D$ coutrieta.

Dicunciel cleanieg Probilen wint icect aus othese in Keich office
ghouevor sernthenien caleceontrius.
$\therefore$ Callec Coung and
lenreed he is to 80 to Nechs, trivereaen - Keich Sergogeted to biev that $D$ go along bect 1 conenor.

Promesel to eone Kisch Qack at 6 but decided recenet did uot workant disterblieg o hers.



| gezap friday 11 JUneatan <br>  | SATURDAY 12 JUNE UNCLASSIFR Ricied |
| :---: | :---: |
| instent day at desh. | of? |
|  |  |
| - - |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  | $\cdots$ |
|  |  |
|  |  |
| - $\quad$ [ | $\cdots$ |
| OUCUASSHFHD | UUACLASSTRED |
| W UNCLASSIFIE |  |
|  |  |
|  | - |



TUESDAY 15 JUNE

ocleeded negulari staff veentieng.

Tached to keich aboet sepnthenis wrib Revieword draft of scoge op wort for Robests contrect st agerared satisfoctorg.

Submitted space nequiraceeveto for leash Bubgieg to troigh ouse Reith's siguetiene
weckived to accompjony Neich to Colviombie for negulas wribly visit due to other wras.

Tached to Elsey about Pasie's negast at metrition nichel eurbintllement. Seeggested he call hersea of Sutrceatemienl leickel, oud Elley of D. Pont. Ogeed to nelease Dehueson quer 28. He promised to do wihat he

## UACLASSHEIED

## coued mmed ately:

Disecesed sunthesis grogiane with keich

Doscensed woth g.dley for firit tivite coortiog ase wock of Robents at ferney City meder O.S.R.D. Rather ther gert uerder Kellef.

Pecrened status of construction wak at Gersaypitap and wise place to get Robects off job the weal.

Quhed Bafer ogaien about engincer to neplaer DiclionsonHe agfeted to get someone this wark.

Taekelikith at keagth on syin-
thears Ageiead to neconsider system uning oxygen.
at Uraplingguest. enleor lant ece obtained data on Elliot saquast for AnA fr lie of at Hormion. Contac fed caft Herreis at gamei Achod P.C.s farm He promised toccele loeshiag ton dinerally Colled Harris bach at 2 . He had contactad Coft. Doder buet Dooley was peromistic ab.int eftiver rating for latron ouly. Advissed capt. Atorris Thet similar, pronities had beres obtreieed in thepant ond showed himilerts fiom CE GHE cosencieg geat of AAA perenitiley for to0,000 wher of labur: ite promised to travinit rhis informaction to DooloyColled ham, gain ot 5 me tr hadent breed from Dooley buet The hal bevie. advised by Capt Mille's office thet priosity for labon coued be obtaiened. Promised to call mne tranathou UNCUASXIEIED to newew NAic: s nofors a secernd thice in pearch of oertiment mathen wall:
 speciel thares fer eare wont wite woen. Beredict, Proenosten, aeed Traxel.


| TUESDAY 29 JUNEAC:A URPCLESSIFIED st. patethe Aootic Ottrided nogulan | WEDNESDAY. <br> 30 J J YXACLASSIFIED 181 si : Day <br> 184 Days <br> to come. <br> Reviewed jalumse |
| :---: | :---: |
| stapt weetrie. | ine len keech's ofree. |
|  | apare Focred cother |
|  | p sig fiearece. |
|  |  |
|  |  |
|  | $\because$ |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| - | UNCRASSHEPED |
| UNCLASSIEAED |  |
|  |  |

Tachid to Neicl ans

Stowass ggeed to 80 ahced with vitiogsee glout

Ageed w.th keich to howe vore Ordoce vereme Whe syace at $1022^{\text {nd }}$ streot


Taeled with Keich by phone

Trefid to Vour Onden aboent uftowen sface

TUESDAY.
to come
cotreided stoff weetive UNGEASSIFHED

Qepeed to write leter to Grmy an coolout

Pemeeesed firet beep of Keich's nefor Gegeed to aecrew eatsect retieation thas luech w.ith Kaith

-ageed to get some figeres tige then for homon Robect? firel was.

Qogeed at Belen's pegeration to hove Carbide oforenal of all desigus in wnitiong

UNELASSIFIED
Raepued etimat for gidely on lont phase of Coberes wock.

Wpote Stowers on coolout selection


Went to Columbia on sgace at least Besp. bet with luey Dremanieng. Horegh are othens.

Taled fo Decere and Smitl aboent work. done of la2nd St, gorage.

Tached w.th Gidley oul lockued Suisfid him on os R D).

URPLUSSIFIED

Fraveod leiten for Sfewret covening on obligations verden supglement lo. 3

Taeled to Ridley elout Roberte contrecttigues on sect. sub contracts.
$\qquad$
UNCLASSIFIED
oteciaded negulan ateff unetture ix uerning.

Taelen to Ducring in after in pesh Bedg. Qgeed that we will -cerig pergecth feor ip $f \cdot f^{t h}$ fen is leot avalalile by the ened of this wehk.
 ocergy presonech teoon 4 yifth feow is not acaidole byeced of wrek.

JULY
UNCLASSIFI䍔思:
Sfent voses of weorning disciessing peunel tofics with membous of chigjeler ospanizatoon (vi. Peebs geel oflens) Gied Powers.

Discured ogonizatriniop quenser city labane thry wir var Ondes in Aften wo

Hot eonferever on space at $102^{\text {nd }}$ St with Devece. Pegis. Higpotrick, ored orhers. Tallad to D luer absut eporgine Dureing convereation the osientted hawueg advised len keich enery kn foly that wr woald get space at 102 nd st bicilding.

Discemed orgennsation of gerney city laboratary w.th vore Oedoer. fohnson,aed Colton-

JULY

Discueced w.th
lue Keith a complet thow dra-gace tor. hydrecorbon syfnthenis plact Promised to give Goonced systeres peniove considenation for 10 baree gurday gilot glout

Submitted data on nitwore deacet to Borect for estivalteig.

Ha o luech with lue Noith

Qdviaed west that weatenial woen arrivng at hech Bedg addrened to Keglen also diseinined theis weeter with Sominhaerd hestated all veredors wound be advised by speceill lecten to awaid nopereree tokellel ontuture a - leach Buerdieq. 1 CLASSIFIED

TUESPY (27) Juy

Disecesped
gratection werh D Tolman 2 Casson oeed wer cucten

Altreeded negulen wiebly seapf metting.

Disecined ugtown space with Vou Ordees, and Whrosen nequireveres wht Poweni ge"ed Elsey.

Discumed: stage
filot gent with w.eth.
Suming ared Ramate.


Taeled with Laudace ared Poser about fluonine ploset.

Rewrewnd vitrogen ghent with Wise

Hal luech w.th Dommen.
levet w.th Son.th Capt lernare and A amaison aced disceused sendcmentrects. one reneovel aeed secrelofnevs worke.
P.scunied 8.stage unir with Water, Duinnorg Bow and Booth.

Odvised Cigt Buerman that presecct seledele of Octis-igu3 for initial delivery of veew flerorins. eylindece would bl set is -factory-
 su $l$ er at $A$ oegens office

Taphed to peneer ond be ageed to aread wesetring.

Tesced to Copt Beerman aned advised him thet his indecedad visit to cheyslon woued be ill-tomed Olso adrised Coll Strouers of Beruerae's inter dad visit ared be appeed to atop thip.

TUESDAY 3 AUGUST
UNCLAS\$\$FED
Qetereded negelen skoff leceeteing.

Disceesined nitroges gloct sise w.th len kert aen ogpeed on 125,0000 cerbe ft per day-

Reirewed deciscon to msert traere fer gount at middle of coseade for 8 -stage oulot plant. with ler luates aed on. Breedict.


| $\qquad$ |  |
| :---: | :---: |
| - | bydrogerent tor K-25 |
| \% |  |
| $\cdots \cdots$ | O- Qowised Friend to |
|  | considen eracted g-uveouca |
| $\cdots \cdots{ }^{\circ}$ | os source of hey drogere |
| $\cdots$ | tor Houdicle. Heraker- |
|  |  |
| 4, |  |
| - |  |
| $\cdots$ |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  | - |
|  | YAGGLASSIFHED |
| ANCLASSIFIED | - |
|  |  |
|  |  |

leet wirh gén. ginven.

Olecedal regulan stapf weetivg ie uererong.
attereded eceating on 8-stage plot plout dewing aftervern.

Qow.sed Stowen thet wr are rescandierg our naquest tor uneresed facibicies for Kuib Oroduetion

Rowrewed her Kieclis vasktirs negent toluehalo, with Boben.

Taeled at some leaegeh to Du
Sumaing about improctaree of has: ing ade decesions concerning mennepehmer of equa puaent orriginate wint Relew C Cita sdecefrealy ber Prestis disconesion wirt chayelen and Lubaus

Seict drept of letter to lienes Son th: B thev.end Hruel for apace nequiremet at fifth fean op leceh Redy Cel a topered draft. withant revision Qouised Hocuch rhat lectes seneord be deLuered toluajor. Hough by speciel wienceigen on this date, aced he promiced to houre this dome.




Taebel to hu krich at lenget abait advisability. of treativeq flumino, hydroger. and nitrogen as sfeeial climicols to be furnished by cheineel com-gonces under contract winh Qrimy-

Hough's office caceled ave adviesed of weective to be hold on space alestanent of hash Bueldeing on lueg 23. Vace Odau invited Oikwsed Deme ars he g-geed to atteed.

Taehad to Desure
$x$ alinet syene at leseh Priedieq and ligeed ur heued hoel our yfourd on equlier space allocation.

SUNDAY 22 AUGUST.
234 h $^{2}$

Qotouded meating inchais office ou lione bucclding space, wath pencon, Vou Ordac:Suining gued B=ooth atrent T-ued. with Pruens about feuonnation of punifs at allis chelwers ged 9 vised him that this should bi donci on the basis of present kuroledge: Qgeed to newienl Chriselais grogosed labrotory faculities aid píg ģani. Boher-coed to we wbont wA levontonorey
meetieq to ottend speciel comfereuce uptown on priorities. Qegin sugegoted to Veich wre periously conseden howing Linde puppliy witiogen for sitz and opupant or Hareheie feceacinei under direct oreuy coutrent. Trebed to $q$ accin. Columbia attriniey about spoes Nis gictuse of the situettion quits differeut puim that deuslofged at meeting on the 23 nd. He war imsistrect that. a leten be written station our intention to sign lease for $5^{\text {th }}$ floor. $l$ declined to reud such o lethe in Dennes obncere but did write letter setation that wr are ocenfoing Ppace on $77^{\text {th }}$ loor.

WEDNESDAY

Regeres to Keied au neoriew of Chnysten laboratory prigane his special commerts Digelcitaon of wack was obrionis,but us peason why keled shoulad ossure iesofonability for approval of gra gasad wak.

Disemoned pace naguirewouto ot leash Biniosing wirh thongh Keicl and Denne, in Keichis office though was alwerd of risks which umils be incurred by kellet if rface in leseh prwiedeieq sth feor. were leased from Coluerbia Miden gooprond pectal. Finally ageed to use only $7^{\text {th }}$ fhan and to anpand to nomp area with teuegosary olielters. This deassion teutative wetil loalcarry'ng cepacity of now could be ascentwined. Hongh called latento socy loading war only 18.20 gounde on noop.

Toeked to Gidlay gend Laugan voret Raberts coutract Qgeed to contot Polding when-Largou-inithater Peberts contractiond tothy to hour him signit. Neleng8 wey hour to absorl. overnuin.

Wrote leten to Stowers m fenorine generation $t$ sits. Qiraecized thraegh $F B$ Qoains. $\mathcal{F}$ to uset uagivi: Oince Sor ProduceCo.

Toebed to felbeck about niboger ghoet. He puggested geting Bliss down to toel to lun Kich. This migete be ad visable uffen estinate is couigented.
1

Vis.ted hy chogler plant - plesegudia Livengos Prodecet. Co. at Horrestan Taesh w. Th placet Sugenieteradoent, leve Elolon. aleg losel oued their gie liquataction glant

Qrruired in le acerore at woore Treked w.th luesun Cretreey gees f.ll of thereventonve Corbonco. abrect dis position of Senluigto gilot gloest
$\qquad$
$\qquad$

On thaie pan lenaeses to kow Yok. at $2-30$ prm Repeltel to las pecich ove treif

Descerbed Outer oxygen gonent to berein Callen lui Qopiess of Ocies aned theresed hice tor arreacegieg visit to Howertan glocet. AROD inquirad whether their el Peso peont is for sole the praversad to advise ave of alo pocticiedars by the moddle of uen wesk. Ha luesel wath benteath Discemond witogenglowt wite wise anad Kiech os a demend that sithai a high a low ppenere phacet cones be verele to peser oect we yoar, os wenneng combicel nequirenereats of $K-25$ awd $Y=12$ hiet wath lun Niech at Chourest. Clesb ier ewening
leet woth Lt Col Peesoff and Caft Besserear is Calonel Stravens office and disearnad latest scleadecles $f o$ csib oned lube oil Obtacesed tesctative agearecest pacer R.cheff to have areny fereresh foemuns. at ritz.

Taeled to lhese abocet Qiree orycgen phart ts indicated scheeve ar deserubed to ue Mot odjenoble due to losis of hecos of ueporization of watr.
 oleave

Qutcended nagulai steff
mestreiq - sevenal Strouse was preneut.

Ottreded sfeceial mestieq at R-Afertys office ine ofteinoore lu Keich canee in at 3.45 d.m. Can= colled weoteriq schedued ton Tuendey ewening.

WEDNESDAY.
len VauFleet of Qiceo phoved stateing that $C i$ Poeno gract has a cajueity of oney 10.000 efld. of hychogen. He added that Bulere watch Co. had peant at Volley Streave loug Isloud, which was not in ofenation. This plact han a coperity of $60,-000$ std of hepdro-gene and is reported to be Idle at rhe grenect tioe.

Canegosd pouen lacter woth Buter oul Smich.
sta deciver w.th hu Kerch.


$\qquad$ Taeled w.rh Poces Pruens. Fruit Wioes aned queobs on soceiel chonneals
arceeded sfereial channicals mectueq at conterevee Rown in ofterumon.

Retriewed briefons in eareming.

TUESDAY 14 UNRTEMBERSIFIED to8:Days
to come
National Anthem-Words Composed 1814
wtrereded stoff msethig

Taehed with Nerscher of Buloiva are a askeereed wheit to peocet at raelery streeses for wrdeces day-

Callen Kehl aera Callose at Columbia ie efforet to obtain matallogegenint to Pinnen. Kelue berew of noone, cillace promised to cell boct boet was quite persimistie: Cacord Pap Henry at Braokoipn Rolytech. He also wres elsimistie. Suggented nomes of turo mers wheat and Cordobi.

Cuctacted liengelis of Rellace at Valley stacien Orraceged to have Webb ace Friend unsit poout
aptaieded meaticiq ier aftencow with Englesh oporp

Colled Bulada ts exprevied mtirect in disposing of Valley Stroner placet, biet stated chat the waratsd to pele it ar a compocts Pont at valley Shenece ored wan uet watrested iv Nellierg equepmant at selvige value Somce covt of installation was eitrecendy high sees pelant was largen then requirad for sits, the arrieorgeuneste peigested by Buolocra Aconeed givits wieatteactive.

Callee Piesre Haywe one arel p the ivacee be acracable for consecotation an ilgined vitiogge storage Fridery Soctendry of this wsich. Hz raipled thet Rhes osiojecet wro out if heis luct and that he hiol in inpreviation othen thare that. alcealy geblished by Cloik. ane othew Decided cet to enk for wis perince: He ciace be naechasin. Patshergh al Atlonetue $6-20$. Frialny Qleocaleco Docied theat of Elec gas Proderet co phila. Hz phemised to scabmit proposelifar heydeogen plont are expaciedecinfidever rhat a deglecte ferat enculd be placed in ogaination cot sute by Febnerasy. Qlso calles Bencelt and wes ierforvesed that Recet dore all 6.Eis wale and is necommended bypGe, Cint

Electaic Heating Equergnien o Co. paroosal of segt in.

Teoled to Strwene ien my Af.ee abent rectagere jeaut ne quereveacts acel linde contract. Learever of 60 Imonth carecallotion claine Discensied he thogen ares citiogere peanots wirt Keich and paomiced hom a nagot on netrogear Qacet foi following Leosiday. Taeled to Foad of PittstioenghDinderoveep Stzel Co. absuct ligieed intiogere strage th promisad to subimit propmse I ise a veet, or tawo

Sferet alicenst seetrie Meeniorig with les Laverty of Clast, Koieh acel Wise. discreaseng aned desiggang stanage sqgiefpent for sith. Whote memionarduen convsring conclucions.

Hal lunch uptrom wath lus. Keich.

Pramised to pee Poler ab-act procens denige phogran but ded unt get back.

UNCLASGQUERED 19 SEPTEMBER
Cobrind
Day
13th Sunday aftề Tiniily

Worsed there houes with Wise on raitroger plonit
2. Tacled to Stomens acad Reich abont nitragee olacits Pramisedngast coviering, thees stindies.

Discensed fleconink olait with Recoce oerd advieied him thet Ford; Bacion + Davis would grabably build plant at sits. Taeked to Pereedict aboult gensonnel problems. Whote mermonoridum to kist on savere subject.

Has lench veith Keich aro fencey.

Gevencel bhoves was in office to disceess vatiogers plant

Calel Pohnson about $f$ terter on teacienly's coinglant Cotended stapif mectieg Visited Do Booots for .. firt tries in offernomes:
lect with Loeriq. Gremey ane Riblet at agartereect ive evening.

Storyed home derreerg wearning. Reached, offier ot $28 . \mathrm{m}$.

Duscunsed Tuesdiay Ever"ing miecting with Keisth. Taelied to laudare about dee Pont's Reaction to beriediver flerone plautfor pits.

Wheet to docto in moming Croved ot offiee at il aure Taeled to Keinh Felback wend Stomess ab-aect hy drogere geact and fereanine goust.

Visited Gensey city labonteny ive manning, worth Neich, Stwwens, lereif, Simon ara. Prexts.

Toelid to Keich oes Kent aboect hydar gen efout in aften woon aend offerd to areerge meetirg to Wedriesdoiy, woth Carbide piprasocitatur.

Discumed gropored thif woth Keich. Checled - neture peseresatious and distribeeted ticbets. Called Keich we oftennom to atete $Q$ waceed bre weable to $8^{0}$ to olear becanse of a bol cold.

Taeled to "Smith on hy-hogere plowet the egreed to artered Yerescenda-y uectireg.
otcereded condithming meetien iee Fruitis offece ies eacy veolving.

Conducted weming eeno.on of control mectien w.th Poratish ine Reich's alnevee. Ken keich wes home w.th a cold.

Hos lunch werth levey. Taeked ouse inc geethove petuation.
lachad with kriep ach thes wirh Peerediet abroct Aloomisegdale Hon ceffer with pereery and diseressed odenn thiz.

Qotruced sta-H mectivig in ueoking Taelied to Bunones. evarit Qoncuson. Hz agoed to cull slack for parhere. lans:

Qnterviensed Roven fo Hoedoclle. Menehey Called Pinines aead hised goven on Pooneris tereces.

Taeled to Keith abrout notrogen stomege at site and abonet Ploo minodale.

Qnvited Cereten to hyahoger meetireq se hoduled tor $2 f$ th at ais office.

Weect to doctor is moenixg = achused at offece at 10.a.us.

Qetreched mectieq on Ifsecial gosen iar Porecena offree. Lach of concsote entianater Ood to ineffectenel meetriof-Privear gromered mere perific untramation by thereday euching.

Han luciec wire Neat. Felbech aren Cereten areal continuad discerarion of heydnegan phecet after lunch Obto-eved agpequent of Felbeck oned Cencten on_desosp Poirita Advired coect of Felbech's tectin w.th hichols on sheperong hydhagere to satrein ceplindere. Obtecied yenaposal fersm Nention liste aftancuom.

Arsareged forntan menteing for rhusiday \&uetrive: UNGLASSIFIED

THURSDAY
.273 rd

- Day
- Day

Sewlith New Year
Toellad to
Pofie alrait intolenable perechicing entrintion Dober laten negosta $D^{\prime}$ thet he wes treivan thisut weth Howeck aind Oeratie gead that it perecead dreabable thet neceasel graver woull ib trene own
 That in riepopanim neseakel gfecif cared obtaies raneel betton Alssorea
 of renrontecinempert equela to thent neaIracd by luentis dapentrment.

Tres ed tai heeet bayptione He serates that persesed $0^{-\infty} 8^{-i s h}$ inclugted explosiom=phap matonk and thet. driens verce negenenates wore eloctrical hat aced garacuation Ruthen thew by air pecherng-

Hoh lumch w.in tre bich
Tached, to tano Senive + Steimbeng
Taelad to Gobvecon aberat Raceson aned deended it wea belt to ke homego Otlcustad EQuanal onéąteing ine-asenimq.

UACLASSIERED
fRiDAy 1 octooger

Osorerded meetreq on feronieve paquerovecact of $N=25$
Qavet Deviod Bereadict ace
Wues trabel ree figinea
$!$
aluised by Noed that Stranen use seapy to ne Sotatsucontract w.te Newt.

An.. Pecrised 67 form and mailed.

Tob nowere at Commodos
$\qquad$
$\qquad$ - 2ain …
$-208$
UNCLASSIFIED of hes fies.

Has livect w.th less Neich geet gotereded masting uptown.
SUNDAY 3 OCTOBER:
Toened to her kid
by chace alrent univ:
type of gos zeverenor
(forisd eqjsten):
luemdey - contronied -
Dosemioned pewiced hy dhegere negriesmecets wate $P$.ovens and Landase. Rewneurd calcelations are conclerded. That riat inave thene 6000 efd wrond toe negiched; pobably only yoon $\theta$ t ppeaned a if greveh ane of beydrogere in cyenn den woued be simplest methad for farnistrieg reis gas at site
monday 4 october
UNCLASS胃要
coeereded Cal Strmens office on Qoccoin of pbDercice gacet. Qgeed that MDseion sireare District Coveld anseuce Comfont nesponsibility-for denege of plowt Vellenwoved fir cap-act negriered and ie collaboretion w.th Corbide woued select location Carbide woeved howe privilege of approung all equig weret prone the point of vien of pafety oeve ofenebility Helleq woied be continually informan os to the stiters. of the den $-g$ aced iestanetion of the equerment. The Qrming agpeed to pronde fecalitie. tor botlling fereabiee if Pomaly crevastes tado so by Keleq. $Q_{Q}$ mettiequas sechedulel for thearstay of this week ot thes office. UNCLASSIFIED

Tache mith Myot une gidery aced reaches terens tor sececetcois of
R Robect coutract
Diseresed wire Rosare. Laendere, aed Powell our Cosithar for presentatione to Hadere

Vasited DRBocta
Crmeseded weeteieg Fes Couferarié nome w．rh Hooken appenertetrises，Arery． Cacbideracd kelen，are proevrereieet of $C_{2 i b}$ persits．

Toebed to Pevcreduct olroct geromele．ite staled be was kow trely stoffed ane wored be copecieq dosere by leonererber i，qus．

UNCLASSIF愳
Taeber to Butar Neich luace are luer ors intolerabl ivechenceq situction ot laboratrey Agpeed to meet agoie the following doyi． Dincuned gereseal lebom $\Rightarrow$ bory set up ie offencorou wire boes ordee aer these wirh Gobmison．Wnote letten on $C_{2 i} 6$ nequeremeevts for side to Heich opteruel． Obtaceed Turvue tonese $F$ E．Sohinson go for Powers．

Taelea to ceicl, Stomen, Hrech ace others is Weich's office $o m$ laborgtory peurchasing pitivition. lt ionaseered that laboationy would have Its siani puectini ueg grouts sitracted in lerish Buiesiveq fre pirchaie of of untenieds forbuct feivin city ase leäa Priciequig.

Taela with Felbeck ond Conter aboce iplonder hypregen forside are aboul creb ağuing uncests. Felbect was of the - tinion the a moue foed sygstars weered be beat for the cenditioning bucldieq. A Awised Fifibeck that it ceras alvenest Eraceatiol that wreproceed 5n the berin of o man fold S thin triver buet rhat wale Sumidd be dave on devel ofrent Se technigue for greseeure cylinders.

Taeled to Pouers about zeremonel Ageed the might Eucutuedey haw wise fell tivee aid ceuld hoor him gest teive uos Tarked to Wise alout traenfen to Pocvivis of areprand be seacered ageeable Taebad to Purvens oved Laredace abont location of cirib becedieng al sits. Later taclel to Simurbe savere searon why bocedrieq could not be nourd $15-100$ foet rench fraer nateresas seding.

| (13) остовев | $\text { THURSDAY } 14 \text { October }$ |
| :---: | :---: |
| UNCLISSIFIED | Viseted D, Brat in |
| - | ung |
| 人, $x^{2}$ | UNCLASSIFIED |
| Cancoun |  |
| 4, |  |
| 20, $2 \times$ |  |
| (1) 5 |  |
|  |  |
| $\therefore \therefore \therefore$ Anne. |  |
| Onatan |  |
| $\ldots$ |  |
|  |  |
| $\ldots$, |  |
| - 4 |  |
| $\cdots$ |  |
| - |  |
|  |  |
|  |  |
|  |  |
|  |  |
| UNCL ASSIFIED | UNGLASSIFIED |
|  |  |

Specet wiont op the morming; d.receneerg qesper city mecreserye with phen tren osder. Cusemen, Borge apposited Curscae deisectly ive chonge of peccerity cerder Revèg.

Spaect afteineme ore 6.7 Regoot
 be With:

## movany (18) ocomex

2913t-"
291it-:-
Day :-
s. Lue the EmyNCLASSIFIETE:

Toekel to Wise about uthofen nequerevento acos eaten to Wise, leivy Deaen. ara Kieq. Discreined corsosion stardien with luebb ars outlined his duties.
tor
UNCLASSIFIED


यancl
Doy

22 остовв
UNCLASSIFIE
leet with reguesenetativer of Hosher Carbide. ave Oimey, avo discerend fecenene poont.

Powrewied pant Onta on neebber with miller. Priest. Bareadict aced luebb, and suclined fe-gpack for mosehotare socerglen.

UMCLASSTHREAO 23 OCTTBER aud fohnson aboect reargennation of laboatory pereminal obtaeeed ticteots for ughtate trip.

SUNDAY Q4NOdSESBEFIED
18th Sunday after Trinity
Visited upstate with cd UNCLASSIFIED

Regretel to Kaich on upstate treip.

Taphed to Kergh.
Saratsch, Dencecely aees Receediet about Decerenly's ecperimenatal progacer.

TUESDAY 26 OGTOBER:
luet with Decetseh. Pearevay Peren Preadict ace disecured Denenenly's labonatory oroggace aco presonnel guailable for wole.

Qrecerded stapt raceting.
Taebed to Geveral Queves by ofhare ased a olvised him rhet visit of Porotish reegineers wored most centaiely deley ouer work.


GRIDAY 29 October.
luet w.th Pereed.et. heres, Ponnes, aers wheelan, ane decided to une valuel for difturen on 8 -stage unit.

Tached to Rosene onel Wise above nitrogen neqeereverats:

Taeked to Bohnson about laboratory set ufs. sotuation with Rosere.

Taeted to Vace Ondere aboent neotgrunsaterin_of laboratory.

Discersed feresine Manefold systere with Rosere 9 Ler Loce.

SUNDAY (31) остовв:
UNCLASSIFIED
$\square$ Cauon about gottice ujpreneation ove fived fee pecheontracts for O.S.R D Hz promied to oect a maie on the job

Octecedad negulai staff vecitiog Toache to gidey olonet Robeits conethect. Ite advised that it hav heare prebreitted to ase. - for approu-l aeed paid rhat wre shaved les uese fuenl gayueret to Robects whil atornont is gfacted.

Tackel to Whe obvet Witheger pequirererecet acel to ceney abost $k-$ barrien cerles hien nogordier lueys kequent that ho goto chicazs for a welh. He won of the ofinion thet he covel rant sfore this much tivere. Ageed to hank him diseeens the molten wite lereg god pee whether or cent Saghrawe, luseje moan, couel 85 as a sibstitute.
a cramad weatrieg is lon. Reith's Afice on interstage pipug callewlatans. Ageed to get were for terts at Gearects aead preabably at
Qleis.

Has lueach with Hocect ard Denne.

ostereded neceting iv Kectss affice on barhiess. Quwied trat kelol bas reponsibitsty for continuously peppested bosbiens Onnemed nenomsibility for obtaining uecersaby space and fersommel for expacision of our urale.

Obtaiered veatinial ture uftrion to krich to toke on his theip
luet w.th negrenecctatives of cormy Linde ared Carbide ane diseuened syecifecations ore whiogor gend stronge facilities for sits.

Qgeead wath Pearediet to houre noszle sizer of fultens chauged.

Geehed to Keich, Felbecte, ared Sotusom on barriess.

UNCL XESMAEAE 10 NOVEMBER
Taebed to Elacy geed later to keith eboat acclerio teieq work ouk-1 basrien. Taekel to preitech, Deavenly, acil Bohueron about Daaneily's Recprimental wrobs

THURSDAY 11 NOVEMBER

Bereadict gen disouned labonatore gensmmel.

Visited fenery city Dabenatiry ine owroning geed trebed to Currace. visited D Boots.

Calles luey aced oshed what spere at leob Rene: also advised him riat we could unake luss avaclable for a Rumivey of the urechacreal a-pecte of the strif mill Toched to Crist oeed promised to hour lleos report tothim the followenc day got agoceasel of both Frieeed aed Lobo for thas treurfers.

SATURDAY 13 NOVEMBER

Visited Colverbie with cal stamensoed tacked to levey abrent spece to $K-1$ dewelogneent, (oes mever to P.C.K)
actereded ueetrieq at thes offiee on interstoge g-oing? sines.

nowe stching wechine. at appoeral to bio ofinatien sal sfactoraly. Oradieckeg a contorinous sheat Same? additivel urosk woeela be nequeres to geiffel ofonatinu are uel ouraposio veakeniol rat high speed. Homeneane offercel alvia, able to diseentionve work Enpreneod ofunion thes Sarn. Tinur ataell stap wask ummediotsly aeed jegene nepost and invevtory of wererifond ceatreials.

Taebed to Penai ane Cavedere abont nenverfis por Hooble perest Asseseged to trok to Cuwten rhe following day.

Drsearnsed ofernem of fran City preneuse de of loop wire Bond ana them, wath Baradect.


UNCLASSIFIED
abtereded barsice meative ie len Kerth's office. Diseursed need for unaterrals verer with lseleahou. Diseecered feronve manifoes with Rosece Loendare is worbeeng onit Discensed inent $8^{\text {as }}$ gerenation with Wise lun teich gramesed to neabe decision on Tuesday on luedreerday.
weetrieq in ues Nerth; office with Pininen, Dacitsch. tohnsam and w.llis. actoidid ... stopf weotieq.
$\therefore$ Weist lookereg tom opace in aften woore-

Hal Ker ontece look at
Tolled to gunem almost abtainoung wechevereal onegonell aret to Powere aloat phos fhare bronse Replouss.

Diseresied w.te Rorace the propand progene for devalof. wenct of c-2.16 equeipment. Taesad briefley to Cenoser obrat reitroger.

Disenmene. K-1 actup avith leen Keith aees agead thet thegh Toplow wosied be rdeal for the pocet ineere.

Wet Enturhaw Cook of Acererener Bhal shae co. ons kiefley disecered gecssonnel prob. leves. Hz eromiced toee cooferation is procerrevereat of $K=1$ gerrannor.

Qgfeed wath len Kecth to peckeliene ligoned motrexger for sotr.
attenecil vecticen with Taylen Keich whencotl aree Elsey. criticnsel ane rehapteed joint ecter of lerey aces keich to Groives, cesogeativiq Toplow as cerrelatar of oce bereies wosk.

Cales Vre Ordereaced asuiser hiun to corctact trough ared proceed w.re thind floo of learh Bueloieq.
lect w.th Linde gave on ietiogen stozage. D.seceared wethode of haredicer peak. loess as enascibility of tabieng pent of 8 on pove to of stonnge taces. Rot wowhene ose fectientores. veren vith vereres. Leaveran he hal contactel trough aces abtereed oll biet 3000 squere fert of theres feom ot lish bualdieer.

Arsieirges to heve Licide were vost qeaneq city ced obresue devpout oppanatue. Tacice to Taplos: Quacon hivir dhe we had heaie Recisoneblo ie ver Requerts for spres trover Coluerebia

THURSDAZ 2 DECEMBER

Visited Pr Boots ive wernnog.

Toebed to Fouron aboul whlig- agpeed to hoors Aoeediet uisit i Sehencetady are taeb to Chlíq. Taeha to gemares by phove alroet eartreer dracevings of conditroning buiodieq: Odvesed Babea.

| $\text { SATURDAY } 4 \text { DECEMBER }$ |  |
| :---: | :---: |
|  |  |
| NCLASSTFIED |  |
| . |  |
| - |  |
|  |  |
| \% | - |
|  | . |
|  | $\cdots$ |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  | . |
|  |  |
|  |  |
|  |  |
|  | UNCLASSIFIED |
| UNCLASSIFNED | - |
|  |  |
|  |  |

Ta isee to Pereedict by phere about Whlig acos luey's affranch. Qelused him thet we coned grane the gecatics at deast tecerporarulyTaebed fo bace Orden. abrect foree at heat buieding. learees that Taplon hod nequested ore as thones 3000 squere fret. cecterieg our ases to a base minitation-
leet with Iyster ain othen nefreneutativas of Hoobla to disecers fleranve manifoer: Theip tent tively ageed to uerdoctabe thes vurk. Tachen to Ceuter ove sacre secerjeat Raten the wan in co corefle to aggeeveranst anth conclecsinas up veativig Ourareged to harer Speygere 85 to Wilmingiten to meativeq with DM, Pout as nequantas be cecoter.

Discenched w.th Kich spece an granonvel for K-1 engourion. Treles to Vorederboef ane yerger about procurkmeat of electe chemiste. levat with keith aese Toylou ane discuered gererel $K-1$ pituntion.


UNCLASSHFIED
 C.L.6 with Smith acel Rovere, aved etartiiq of of peavt wite Pereediet

Speect aftenvom with Protish grap diseressing reabber?

Linde about uithoger stoingeOefeed to ceoet with h.m som on sfae nağ viremects, facilities, ete. oticreded iveativig ie of terevore with Brictist. Subject: nubben-

| $\text { SUNDAY } 12$ | DECEMBER $\begin{aligned} & 19 \text { Deys } \\ & \text { to come } \end{aligned}$ |
| :---: | :---: |
| UNCEASSIRIED |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| 4 | , |
| -asonove |  |
| UNCL SSSIFIED |  | others ue oftennoon arel agfeed tu cerecel negpuest for स-4ib for malue peet. alsomade falley decision towse mebber forthis peswies.



UNClASSIFIED


UNCLASSIFIED

UNCLASSIFIED


TUESDAY 21 DECEMBER
leet woth Bonnen. Opicilen, JincKinsie, geel boer orgore geen diserensed best flow benis sotion atherenes mentries, on Procerrevenont of C-6.l for obact w.th refre-pecct-atien of Carbide geed Blany.

Atovel metrieg with Epares, Conanete. Teebe to Posers alout sfeciel chemieal. cicl Elney abont une of 989 6.74 the agpeed to hove oritable tenten reare ecther at ferney city us ugtrom-

Terles to Erihnsaon ane miners.

Wet wath Porweno, Wiser Landace arel Wie clelleer ace deciest to procerd with acheloies roethod for teecorice dis posial. Qeno seeqfentes. that lacedaes invortiget possibility of cutting fruen to as \% of design capreity wen that wise soperes a few days inventigatiog Whe essibilitics of Esbolf fomeride oue jocess gुo.

| FRIDAY 24 DECEMBER | SATURDAY 25 DECEMBER |  |
| :---: | :---: | :---: |
| UNCLASSIFIED |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |



Gorecen ptaf mectien in veotring.

Attereses meatireq ive of ers-
wom with Riencele, Rucmace, achl licitase, are ${ }^{t}$ discerned lube all nquierevereto aer nitagere strange. Obtacines Strmens adperaval of referct to be givere to British. spencut some terice trepkieng to Dr. leerefole of Columbia about distibution of seppats to his groved.

Taches to lerovere abroct introgen toreqe in morairgp ace disecesed locetimep $c-21 b$ genenatrieq, $c-26$ disposal, aed G-74 gecet.
attreves ueeteieq on corecelcatteon of chrepslen develofrment conturet. Boler ohmed Velles a Noising him of decision of cuare to exterl contrenet 30 Reqs.

Heel mectreq on c-rib disposal ares lois Ploce for segorging alter Dateire methode: caustie, selt C-6.b aes the divalent cobalt salt.

UNC SSSIFIED

UNCLASSIFIED

UNCLASSIFIEGONUARY

Date . Item - Recd

## UNCLASSIFIED ${ }^{\text {MARCH }}$






## (a) - J OLY UNCLASSIFIED

## JULY UNCLASSIFIED





## OCTOBER

Dote

UNCLASSIRIEDOVEMBER
Datè $f$ liem $\quad$ Rec'd ${ }^{\text {It Paid }}-\{$ Bol.

UNCLISSIFIED
Dote : Item $\quad$ Rec'd $\quad$ Paid $\quad$ Bal.



UNCLASSIFIED

## RAILWAY EXPRESS DATA

First Class General merchandise-Rates vary according to weight and distance carried.
Second Class Articles of Food and Drink with limitations, also seeds, roots, grains, etc. Rates $25 \%$ less than First Class.
Third Class Books, Advertising Printed Matter, Printed Cards, Pamphlets, Calendars, etc. Each Package should be marked to indicate contents. Value limited to $\$ 10.00$. Rate lc. for each 2 oz . or fraction thereof. Minimum charge up to and including
 scale 51 to $90 \ldots \ldots . \ldots$.............. $30 \phi$ scale 91 and over................. $35 \phi$

Special Express Rates are available for certain classes of merchandise. A special rate for advertising matter, with a minimum charge of 25 c . and point to point commodity rates are available. Such information may be obtained from any Express Office.
All Rates and Charges include Collection and Delivery in cities and principal towns. Packages may be left at Western Union Offices, or will be called for by Western Union messengers, without extra charge.

Regular Express charges include insurance up to $\$ 50.00$ on each shipment of 100 lbs . or less, and 50 c . per lb . where shipments weigh over 100 lbs . Additional insurance may be obtained at 10 c . per $\$ 100.00$ or fraction thereof.

Charges may be prepaid by shipper or collected from consignee.
Air Express service is operated in co-operation with Rail Express. Shipments for transportation by air are accepted under the same general terms and conditions. Shipments of unusual bulk or weight (over 200 lbs .) are not accepted for transportation by air, except by advance arrangement. Practically all classes of matter can be handled by air express, except live creatures, and inflammables.

UNELABSHFHED

UNCLASSIFIED

## POSTAGE RATES <br> Subject so Change；Consult Postmaster

AIR MAIL：6c．for first 02.
6c．for each additional ozi．or fraction
FIRSTI CLASS：Written matter and matter sealed against inspection．
LETTERS： …．．． 3 c an ounce or fraction except for localdel POSTCARDS（Private Mailing）．Ic．each． POSTAL CARDS（Government）Ic．each．．
SECOND CLASS：Full copies of newspapers， magazines and periodicals．（May be sent Parcel Post if cheaper）
DOMESTIC．．．．．．Ic．for ea． 2 oz．or fraction．
FOREIGN．．．．．．1咅c．＂،＂،
2c．＂＂
THIRD CLASS：Merchandise and printed mattet weighing 8 oz．or less．
（Special rate of Ic．for each 2 oz or or fraction． （Special rate of Ic．for each 2 oz．or fraction for printed books and catalogs of 24 pages or more．）． FOURTH CLASS：（Parcel Post）covers matter weighing over 8oz．（except lst and 2nd class）．Zone rates．apply．
SPECIAL HANDLING provides a means for secur－ ing same fast transit and delivery on fourth class parcels as is accorded letter mail．
If ordinary postage stamps are used，packages must be endorsed：＂SPECIAL HANDLING＂． Additional Fee

2 lbs．orless．．．．．．．．．．．．．．．．．．．．．10c．
over 2 lbs ．and up to $10 \mathrm{lbs} . \ldots .15 \mathrm{c}$ over 10 lbs．．．
SPECIAL DELIVERY
FIRST CLASS
Additional Fee
Additional Fee
up to 2 lbs．．．．．．．．．．．．．．． 10 c
over 2 lbs．and up to $10 \mathrm{lbs} . . .20$ over 10 lbs．．．．．．．．．．．．． 25 c
OTHER＇CLASSES（including special handliog） up to 2 lbs．．．．．．．．．．．．．．．．．．．．．． 25 c over $10 \mathrm{lbs} . . . . . . . . . . . . . . . . .35 \mathrm{c}$ ．
If ordinary postage stamps are used，package or
letter must be endorsed：＂SPECIAL DELIVERY＂ letter must be endorsed：＂SPECIAL DELIVERY REGISTRY MALL，FIRST CLASS（Sealed） $\begin{array}{ccc}\text { Indemnity } & \text { Fee } & \text { Indemnity } \quad \text { Fee } \\ \text { Up to } \$ 5 \ldots .15 \mathrm{c} . & \$ 300-\$ 400 \ldots . .60 \mathrm{c} . \\ \$ 5-25 \ldots .18 \mathrm{c} . & 400-500 \ldots .70 \mathrm{c}\end{array}$

| $\$ 5-25 \ldots .18 \mathrm{c}$. | $400-500 \ldots .10 \mathrm{c}$ |
| :---: | :---: |
| $25-50 \ldots .20 \mathrm{c}$. | $500-600 \ldots .80 \mathrm{c}$. |
| $50-75 \ldots .25 \mathrm{c}$. | $600-700 \ldots .85 \mathrm{c}$. |
| $75-100 \ldots .30 \mathrm{c}$. | $700-80 \ldots \ldots .90 \mathrm{c}$. |
| $100-200 \ldots .30 \mathrm{c}$. | $800-990 \ldots .95 \mathrm{c}$. |
| $200-300 \ldots . .50 \mathrm{c}$. | $900-1000 \ldots 1.00$ |

Articles not registered full value are surcharged at a
special rate according to their－value．

INSURANCE（3rd and 4th Class only） $\begin{array}{ccc}\text { Value．} & \text { Fee Value } \\ \text { Up to } \$ 5 \ldots . & 5 \mathrm{ce} . & \$ 50-\$ 100 \\ 250\end{array}$
 RETURN RECEIPTS：for Insured or Registered Mail Domestic 3c．each．Foreign 5c each． COLLECT ON DELIVERY MAIL（Fee includes insurance）
Upto $\$ 5 \ldots . .12 \mathrm{c} . \quad \$ 50-\$ 100 \ldots .32 \mathrm{c}$.
5－25．．．．17c． $100-150 \ldots . .30 \mathrm{c}$ ．
25－50．．． 22 c ． $150-200$
Third and fourth class matter may be closed against inspection when wrapper bear authorized against inspection when wrapper bears authorized
printed indicia．If sealed without indicia，parcels are subject to first class rate．
SIZE OF PARCEL POST PACKAGES
Parcels must not exceed 100 inches in length and girth combined．For parcels measuring more than 84 inches but not more than 100 inches in lengtb and girth combined，the minimum charge shall be the rate for a 10 pound parcel．The maximum weight limit is 70 pounds to all zones．
Under $\$ 2.50$ EES FOR MONEY ORDERS Under $\$ 2.50$

Over 2.50 and not over $\$ 5.00 \ldots \ldots .18$ cents ＂ 5.00 ＂＂ 4 ＂ $10.00 \ldots . .11^{8}$＂ $\begin{array}{lllll}\text {＂} & 10.00 & \text {＂．} & \text {＂} & \text {＂} \\ \text {＂} & 20.00 & \text {＂．} & \text {＂} & \text {＂} \\ & 40.00 \ldots . .13 & \text {＂}\end{array}$ | $"$ | 20.00 | ＂ | ＂ | $"$ |
| :---: | :---: | :---: | :---: | :---: |
| $"$ | $40.00 \ldots \ldots .15$ | $"$ |  |  |
| $"$ | 6000 | $"$ | $"$ | $"$ |
|  | $60.00 \ldots \ldots .18$ | $"$ |  |  |


－No money order issued for more REFORWARDING
Letters；post cards and other first class mail may be reforwarded without extra postage．Other mat－ ter requires a new prepayment of postage． FOREIGN
Letter postage for all foreign countres in the fol－ lowing list is 3 c．per oz；Argentina．Bolivia，Brazil， Canada，Chile，Columbia，Costa Rica，Cuba，Do－ minican Republic，Equador，Guatemala；Haiti， Honduras，Mexico，Newfoundland，Nicaragua，Pan－ ama，Paraguay，Peru，Salvador，Spain and Col－ Th
The letter rate to all foreign countries not in the above list is 5 c ．for the first oz．or fraction，and 3 c ． for each additional oz．or fraction．This includes the Gollowng：Bahamas，Barbados，Bermuda，British slands，Europe，New Zealand，Tobago，Trinidad and Windward Islands．
For all foreign letters， 15 c．in addition to postage． For rates on other classes of foreign mail，inquire at post office．

UNCLASSIFIED

## COUNTING HOUSE

 CALENDAR 1944|  |  | Mo． | TI． | We | TT． F | Fr． |  |  |  |  | S．Ma．$T$ | T．Tu．W | We．${ }^{\text {Th }}$ | Th． | Fr．Sa |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| JAN． |  |  |  |  | $\cdots$ | ． |  |  | JULY |  | $\cdots$ | ．．$\cdot$ | $\cdots$ | $\therefore$ |  |
|  |  |  |  | 5 | 5.6 | 7 |  |  |  |  | 2.3 | 4.4 | 56 | ${ }^{6}$ | $7{ }^{7} 8$ |
|  |  |  |  |  | ${ }^{5} 1{ }^{6}$ | 14 |  |  |  |  | 518 | 12812 | 128128 | 128 | 18115 |
|  |  | （17 ${ }^{17}$ | 18 | 19 | ${ }^{20}$ | 21 | 12 |  |  |  | ${ }^{1} 117$ | 183 | 1919 | 20 | ${ }_{21}{ }^{196}$ |
|  |  | 26 24 | 18 | 26 | ${ }^{2}{ }_{2}{ }^{20} 2$ | 28 | ${ }^{29}$ |  |  |  | ${ }_{3}^{88} 129$ | ${ }_{25}^{200}$ | ${ }^{26}$ | ${ }^{27}$ | ${ }^{28}$ |
|  |  |  |  |  | ${ }^{6}$ | ${ }^{29}$ |  |  |  |  |  | ${ }^{207}$ | ${ }_{208}^{208}$ |  |  |
| FEB． |  |  |  |  |  |  |  |  | AUG． |  | 2． 213 | 1 | 2 | 3 |  |
|  |  | 7 | ${ }^{38}$ | 9 | ， 10 | 13 |  |  | AUG． |  | ${ }_{6}{ }_{6} 72$ | ${ }_{8}^{214}$ | ${ }^{225} 9$ | 10 | 112 ${ }_{12}^{212}$ |
|  |  | ， 18 | 15 | 16 | ${ }^{1} 1717$ | 18 | 19 |  |  |  | （13） 120 | ${ }^{211} 12$ | ${ }^{2212}$ | 123 |  |
|  |  | 21 | ${ }^{25}$ | ${ }_{5}^{23}$ | 23 ${ }^{24}$ | 25 | 26 |  |  |  | 20， 23 | 229 | 退 | $2{ }^{20}$ | ${ }^{235}$ |
|  |  |  |  | ．${ }^{4}$ | ${ }^{55}$. | ${ }^{5} 5$ |  |  |  |  | 238 ${ }^{28}$ | 223 238 |  | 23723． |  |
| MAR． |  | ？ |  |  | 2 |  |  |  | SEPT． |  |  | $\stackrel{212}{24}$ |  | ${ }^{24} \times$ | 1.2 |
|  | 5 |  |  | ${ }_{8}^{61}$ |  | ${ }^{63}$ |  |  | T． |  | ${ }^{4} 4$ | 5 | 6 |  | ${ }^{245} 8.5$ |
|  |  | 15 | ${ }^{68} 1$ | 15 | ${ }^{6} 16.1$ | 17 |  |  |  |  | ${ }_{11}{ }^{2,18}$ | ${ }_{12}^{212}$ | 20． 23.14 |  | 1516 |
|  |  |  |  | ${ }^{25}$ | $3^{56}$ | 24 |  |  |  |  | ${ }_{18}^{258}$ | ${ }^{256}$ | ${ }^{230}$ | ${ }_{21}^{288}$ | 2223 |
|  |  |  |  |  |  |  |  |  |  |  | ${ }^{2}{ }^{20} 2^{2}$ | ${ }^{265}$ | 259 28 |  | 22 |
| APRIL |  | ${ }_{87}$ |  |  | ${ }_{*} 0$ |  |  |  |  |  | ${ }^{88} 820$ | ${ }_{220} 27$ | 27122 |  | ${ }_{23}{ }^{27}$ |
|  |  |  |  |  | $\cdots$ |  |  |  | OCT． |  | 1.2 | 323 | $4{ }^{4} 5$ |  |  |
|  |  |  |  |  | 56 | 7 |  |  |  |  |  | ${ }^{272} 10$ | ${ }^{271}$ | 1272 | ${ }^{230} 13814$ |
|  |  | ， 10 | 11 |  |  | 14 |  |  |  |  |  |  | ${ }_{235}^{258}$ | ${ }^{22519}$ | ${ }_{20}^{238}$ |
|  |  | \％ | 18 |  | 20 | 12 |  |  |  |  | 20， 230 |  | ${ }_{232} 232$ |  | 20， 205 |
|  |  | ${ }^{2}$ | 125 | ${ }^{120}$ |  |  |  |  |  |  | \％ | 24 |  |  |  |
|  |  |  |  |  | ${ }^{128}$ |  |  |  |  |  | 边 300 | ${ }^{315}$ | ． |  |  |
| MAY | 121 |  |  |  | $\cdots$ |  |  |  | NOV． |  | $\cdots$ | $\cdots{ }^{1}$ | ${ }_{308}^{1}$ | $\underset{30}{2}$ | 3 3.4 |
|  |  | ${ }^{128}$ |  |  | 3 | 5 | ${ }^{6} 12$ |  |  |  | 516 | ${ }^{7}$ | （ | （ |  |
|  |  | ${ }^{8}$ | ${ }^{9}$ |  | 11112 | 12 |  |  |  |  | ${ }^{12} 13113$ | ${ }^{312} 12$ | ${ }^{315}$ | 316 | 115 318 |
|  |  | 15 | $1{ }^{13}$ | 178 | 118 | 19 |  |  |  |  | ${ }^{20}$ | ${ }^{31}$ |  | ${ }^{323} 4$ |  |
|  |  | 122 | 23 | 2． 21. | ［129 | ${ }^{124}$ |  |  |  |  | $1{ }^{235}$ | ${ }^{\frac{128}{32}}$ | ${ }^{39}$ | 30 | 30 |
|  |  | 20 |  |  | ${ }^{146}$ |  |  |  |  |  | ${ }^{321}$ | ${ }^{233}$ | 3243,5 |  |  |
| JUNE |  | 150 | 151 |  | 1. | 2 |  |  | DEC． |  | ${ }^{-1}$ | $\stackrel{\square}{-7}$ | 0 | $\because$ |  |
|  |  | 5 |  |  | ${ }^{158} 8$ | ${ }^{151}$ |  |  |  |  | （1） | S ${ }^{5} 5$ | 313 ${ }^{3}$ | 7 | 3 |
|  |  | 12 |  |  | 1500 16 | 16 |  |  |  |  |  |  |  | 14. | 15 |
|  |  | 19 | 20 | ${ }_{21}^{126}$ | ${ }_{22}^{62}$ | ${ }_{23}^{128}$ |  |  |  |  | 185 | 19 |  |  | ${ }^{57}{ }^{2}$ |
|  |  | ${ }^{176}$ | ${ }^{12}$ | $1{ }^{13} 12$ | ${ }^{172}$ | 退 |  |  |  |  | ${ }_{350}^{25} 32$ | ${ }_{361}^{262}$ | ${ }_{362} 278$ | ${ }^{285}$ | ${ }^{29}{ }^{29} 3$ |
|  |  | ${ }^{123}$ | 129 | 180 | 188 |  |  |  |  |  |  |  |  |  |  |

## UNCLASSIFIED



## UNCLASSIFIED

