ABOVE THE FOG
• BULLETIN OF THE SAN FRANCISCO AMATEUR ASTRONOMERS •

Vol. 58, No. 1 – January 2010

Saturday, January 30, 2010 - *6:00 p.m. - No-host Bar, 7:00 p.m. - Dinner*

San Francisco Amateur Astronomers
Annual Awards Dinner

DELANCEY STREET RESTAURANT, 600 Embarcadero, San Francisco CA 94107 (415) 512-5179

$30.00 per person (*Tax and gratuity included)*

MENU

Includes appetizers, soup, salad, dessert
and non-alcoholic beverages
Served with Baskets of Assorted Breads

Select from the following entrée and dessert choices –

Oak Fired Barbequed Chicken
Oak Fired Barbequed Baby Back Ribs
Oak Fired Barbequed Combo
All above entrees served with greens

Mediterranean Vegetable Platter
Spinach and feta phyllos, over minted cucumber yogurt sauce, apricot spiced Israeli couscous, baba ganoush, hummus, olives, and pita bread

Chocolate Mousse
Warm 3 Ginger Gingerbread with whipped cream
Coffee or tea

PLEASE SEND A CHECK OR MONEY ORDER WITH YOUR CHOICE OF ENTREE PAYABLE TO
SAN FRANCISCO AMATEUR ASTRONOMERS
SEND TO P.O. BOX 15097, SAN FRANCISCO CA 94115
BY FRIDAY, JANUARY 22, 2010.
REQUESTS RECEIVED AFTER THIS DATE CANNOT BE GUARANTEED.

FROM HIGHWAY 280: TAKE HIGHWAY 280 NORTH TOWARD CIVIC CENTER/BAY BRIDGE. TAKE LEFT RAMP ONTO KING ST AND PROCEED 1.0 MILE. CONTINUE ON THE EMBARCADERO, GO 0.4 MILE. MAKE A U-TURN AT BRANNAN ST. ONTO THE EMBARCADERO, ARRIVE AT 600 THE EMBARCADERO, ON THE RIGHT.

FROM HIGHWAY 101 (SOUTH OF SAN FRANCISCO): TAKE US-101 NORTH TO THE I-280 EXIT TOWARD PORT OF SAN FRANCISCO, GO 3.2 MILES. TAKE LEFT RAMP ONTO KING STREET, GO 1.0 MILE. CONTINUE ON THE EMBARCADERO, GO 0.4 MILE. MAKE A U-TURN AT BRANNAN ST. ONTO THE EMBARCADERO, ARRIVE AT 600 THE EMBARCADERO, ON THE RIGHT.

FROM MARIN COUNTY: TAKE US-101 SOUTH OVER THE GOLDEN GATE BRIDGE. CONTINUE ON RICHARDSON AVENUE, GO 0.2 MILES. CONTINUE ON LOMBARD STREET, GO 1.1 MILES. TURN LEFT ON VAN NESS AVENUE, GO 0.2 MILES. TURN RIGHT ON BAY STREET, GO 1.1 MILES. TURN RIGHT ON THE EMBARCADERO, GO 1.9 MILES. ARRIVE AT 600 THE EMBARCADERO, ON THE RIGHT.

PRESIDENT'S MESSAGE

Well, Imagine that, a little boy from Kentucky is now the president of the San Francisco Amateur Astronomers! I am truly grateful to all of you and humbled by the honor. Looking through all of the previous members' eyepieces is a tall order but I think I am up to the task.

I would like to thank Dirk Lammerts and the rest of the Board for all of their hard work over the last year. Their efforts in coordinating club activities and public outreach has been, and will continue to be, an invaluable resource to the community at large.

The first time I did any astronomical observations was when I was about 10 years old. My friend Terry Thomas and I were camped out on the back forty of his parent's farm in Kentucky. Terry snuck his father's surveying transit out from the truck and set it up and had me gaze the moon. The view of the craters was startling and awe-inspiring! I've been hooked ever since.

Since that time, I have taken John Dobson's telescope making class, experienced high power ferver and aperture fever. I have built a 10", 16" and 20" telescope and am now going to carry on the craft by teaching the telescope making class at the Randall Museum this spring.

My greatest passion is holding Public Star Parties and showing the public the wonders of the universe. I see this as one of the most important parts of our mission, and outreach to the public is especially important in the sometimes difficult and uncertain times we live in. We can bring our joy and happiness to others for free!

This year we are going to make efforts to partner with the California Academy of Sciences, the Night Sky Network and other organizations to increase our visibility to the public and provide them with even more opportunities to become aware of the vastness and wonder of the Universe! Hopefully this will increase the ranks of our membership by drawing many new members into the club from the ages of 8 to 80.

The more club participation we can rally from our ranks the more people will become involved and the greater our contribution to the community will become. As the year progresses, please consider volunteering for a club event, suggesting a venue or event or even just taking your telescope out -- even if it's just in front of your house or apartment -- and show people the universe. You will be glad you did and you may create a new member to the club or just open up someone's eyes to a greater reality more exciting and wonderful than the often relentless pace of everyday modern life.

Remember, as John Dobson says: "Your idle telescope mocks you!"

Happy New Year,

Dave

IMPORTANT DATES

SFAA GENERAL MEETINGS & LECTURES -

Randall Museum, 199 Museum Way (Near 14th Street and Roosevelt)
Third Wednesday of each month: 7:00 p.m. Doors open. 7:30 p.m. Announcements. 8:00 p.m. Speaker

JANUARY 30 – 7:00 P.M. - AWARDS DINNER
DELANCEY STREET RESTAURANT, SAN FRANCISCO

January (Dinner)	April 21	July 21	October 20
February 17	May 19	August 18	November 17
March 17	June 16	September 15	December 15

SFAA BOARD MEETINGS IMMEDIATELY PRECEDE GENERAL MEETINGS
6:00 P.M.

CITY STAR PARTIES *land's End (Point Lobos)*

Map and directions: http://www.sfaa-astronomy.org/clubarchive/directions-pointlobos.php

January 23/5:30	April 3/7:30	July 13/8:30 Tue	October 16/6:30
February 20/7:00	May 22/8:00	August 21/7:30	November 13/5:00
March 20/7:30	June 5/8:30	September 18/7:30	December 11/5:00

TELESCOPE CLINIC ONE HOUR BEFORE SUNSET

NOTE: While City Star Parties WILL ALWAYS be held on Saturdays, some will be close to the last quarter phase of the moon; others will be close to first quarter. This is so we can work around dates for Mt. Tam public star parties as well as our Mt. Tam members-only events.

2010 MT TAM SPECIAL USE PERMIT STAR PARTIES - MEMBERS ONLY

GATEKEEPERS NEEDED

Special Use Permit observing nights on Mount Tamalpais are private and open *only* to SFAA members. Please arrive by sunset. A permit is required for each car. We must vacate the mountain by 2:00 a.m. except on specially approved nights (such as Messier Marathon).

January 16	April 10	July 10	October 2
February 13	May 15	August 7	November 6
March 13	June 12	September 4	December 4

MT TAM PUBLIC STAR PARTIES – TO BE ANNOUNCED

MAY THROUGH OCTOBER ANNUALLY

Public nights on Mount Tamalpais start with a lecture in the Mountain Theatre, followed by public viewing in the Rock Springs parking lot. SFAA members may view privately after crowd departs from approx. 11 pm-2 am.
For more information go here: http://www.sfaa-astronomy.org/starparties/

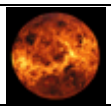
January 2010 Almanac for San Francisco (Pacific Standard Time)

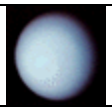
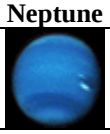
(Source: US Naval Observatory)

Sun and Moon Data:

Date	Astronomical Twilight Begins	Sunrise	Sunset	Astronomical Twilight Ends	Moon	Moonrise	Moonset
2 Jan	5:51 am	7:25 am	5:03 pm	6:37 pm		7:45 pm	8:57 am
9 Jan	5:52 am	7:25 am	5:09 pm	8:42 pm		2:40 am	12:39 pm
16 Jan	5:51 am	7:23 am	5:16 pm	6:48 pm		8:09 am	6:53 pm
23 Jan	5:49 am	7:20 am	5:24 pm	6:55 pm		11:12 am	00:47 am
30 Jan	5:45 am	7:15 am	5:32 pm	7:02 pm		5:15 pm	6:46 am

Planetary Data:

	Mercury		**Venus**		**Mars**		**Jupiter**	
								
	Sagittarius		Sgr (1–17) / Cap (18-31)		Leo (1–9) /Cancer 10–31		Cap (1–4) / Aqr (5–31)	
Date	**Rise**	**Set**	**Rise**	**Set**	**Rise**	**Set**	**Rise**	**Set**
2 Jan	7:37 am	5:27 pm	7:20 am	4:49 pm	7:43 pm	9:54 am	9:58 am	8:37 pm
9 Jan	6:31 am	4:24 pm	7:28 am	5:03 pm	7:07 pm	9:23 am	9:34 am	8:16 pm
16 Jan	5:54 am	3:44 pm	7:33 am	5:18 pm	6:27 pm	8:51 am	9:11 am	7:57 pm
23 Jan	5:45 am	3:30 pm	7:36 am	5:34 pm	5:46 pm	8:16 am	8:47 am	7:37 pm
30 Jan	5:50 am	3:31 pm	7:36 am	5:50 pm	5:04 pm	5:41 am	8:24 am	7:17 pm

	Saturn		**Uranus**		**Neptune**	
						
	Virgo		Aqr (1–14)/Psc (15–31)		Capricornus	
Date	**Rise**	**Set**	**Rise**	**Set**	**Rise**	**Set**
2 Jan	11:35 pm	11:45 am	11:04 am	10:47 pm	9:50 am	8:27 pm
9 Jan	11:08 pm	11:17 am	10:37 am	10:20 pm	9:23 am	8:00 pm
16 Jan	10:40 pm	10:50 am	10:10 am	9:54 pm	8:56 am	7:34 pm
23 Jan	10:12 pm	10:22 am	9:43 am	9:28 pm	8:29 am	7:08 pm
30 Jan	9:44 pm	9:55 am	9:17 am	9:02 pm	8:02 am	6:41 pm

January Phenomena:

2 Jan, 4:00 pm: Earth at perihelion
3-4 Jan, Quadrantids meteor shower
4 Jan, 10:00: Mercury at inferior conjunction
5 Jan, 3:00 am: Mercury 3.4° N of Venus
11 Jan, 6:00 pm: Venus at superior conjunction
13 Jan, 8:00 am: Mercury 4.5° N of Moon
14 Jan, 10:00 am: Saturn stationary
14 Jan, 11:20 pm: Annular solar eclipse, Asia/Africa
15 Jan: 1:00 am: Venus 1.4° S of Moon
15 Jan, 1:00 pm: Mercury stationary
17 Jan, 2:00 pm: Neptune 3.3° S of Moon
17 Jan, 10:00 pm: Jupiter 4.2° S of Moon
19 Jan, 10:00 pm: Uranus 5.4° S of Moon
27 Jan, 1:00 pm: Mars nearest to Earth
29 Jan, 1:00 pm: Mars at opposition
31 Jan, 5:00 am: Regulus 3.7° N of Moon

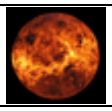
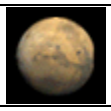
February 2010 Almanac for San Francisco (Pacific Standard Time)

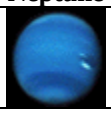
(Source: US Naval Observatory)

Sun and Moon Data:

Date	Astronomical Twilight Begins	Sunrise	Sunset	Astronomical Twilight Ends	Moon	Moonrise	Moonset
6 Feb	5:40 am	7:09 am	5:39 pm	7:08 pm		1:35 am	11:19 am
13 Feb	5:33 am	7:01 am	5:47 pm	7:15 pm		6:40 am	5:44 pm
20 Feb	5:26 am	6:53 am	5:55 pm	7:22 pm		9:48 am	00:45 am next day
27 Feb	5:17 am	6:44 am	6:02 pm	7:29 pm		5:18 pm	5:53 am

Planetary Data:

	Mercury		**Venus**		**Mars**		**Jupiter**	
								
	Sgr (1–9) / Cap (10–26) / Aqr (27–28)		Cap (1–8) / Aqr (9–28)		Cancer		Aquarius	
Date	**Rise**	**Set**	**Rise**	**Set**	**Rise**	**Set**	**Rise**	**Set**
6 Feb	5:59 am	3:43 pm	7:34 am	6:06 pm	4:23 pm	7:04 am	8:01 am	6:58 pm
13 Feb	6:08 am	4:03 pm	7:31 am	6:23 pm	3:43 pm	6:29 am	7:37 am	6:39 pm
20 Feb	6:17 am	4:28 pm	7:26 am	6:39 pm	3:06 pm	5:54 pm	7:14 am	6:19 pm
27 Feb	6:23 am	4:57 pm	7:20 am	6:54 pm	2:33 pm	5:21 pm	6:51 am	6:00 pm

	Saturn		**Uranus**		**Neptune**	
						
	Virgo		Pisces		Capricornus	
Date	**Rise**	**Set**	**Rise**	**Set**	**Rise**	**Set**
6 Feb	9:15 pm	9:27 am	8:50 am	8:36 pm	7:35 am	6:15 pm
13 Feb	8:46 pm	8:58 am	8:23 am	8:10 pm	7:08 am	5:49 pm
20 Feb	8:16 pm	8:30 am	7:56 am	7:44 pm	6:42 am	5:23 pm
27 Feb	7:47 pm	8:02 am	7:30 am	7:19 pm	6:15 am	4:57 pm

February Phenomena:

3 Feb, 10:00 pm: Spica 3.2° N of Moon
7 Feb, 2:00 pm: Antares 1.2° S of Moon
7 Feb, 9:00 pm: Venus 1.0° S of Neptune
11 Feb, 8:00 pm: Mercury 2.2° S of Moon
13 Feb, 8:00 pm: Neptune 3.4° S of Moon
14 Feb, 12:00 pm: Venus 5.0° S of Moon
14 Feb, 3:00 pm: Neptune at conjunction
14 Feb, 5:00 pm: Jupiter 4.6° S of Moon
16 Feb, 4:00 am: Uranus 5.4° S of Moon
16 Feb, 6:00 pm: Venus 0.5° S of Jupiter
25 Feb, 7:00 pm: Mars 5.2° N of Moon
27 Feb, 5:00 am: Mercury 1.7° S of Neptune
27 Feb, 4:00 pm: Regulus 3.8° N of Moon
28 Feb, 2:00 am: Jupiter at conjunction

JANUARY ASTRONOMY EVENTS

Kenneth Lum

Happy New Year and welcome to the resumption of special public events on Astronomy and Physics in the Bay Area! I hope you will find these new postings as interesting as the ones from last year.

Wed. 1/20 Noon SETI Institute Colloquium Series 515 N. Whisman Road, Mountain View When: Wednesday, Jan. 20, 12:00 noon Where: The SETI Institute, Arecibo Rm.	**The EvoGrid: Building an Origin of Life Simulator & Its Implications for Life, the Universe and Everything** **Bruce Damer**, DigitalSpace and Biota.org Bruce Damer will present the current state of the EvoGrid, a worldwide, multi-disciplinary project to simulate the chemical origin of life on Earth or as it might have occurred elsewhere in ours or other universes. When operational in 2010 the prototype EvoGrid will employ a central grid of computers to generate "digital primordial soups" and then, inspired by SETI, an even larger set of observer computers operating as @Home screen savers will be employed to look for signs of emergent complexity within the soups. While we are not expecting bona fide alien forms of digital life to emerge from the EvoGrid any time soon, the experiment will present long term profound implications for science, religion, and perceptions of our place in the universe.
Wednesday, Jan. 20, at 7 pm: Smithwick Theater, Foothill College, El Monte Road and Freeway 280, in Los Altos Hills, California. Call the series hot-line at 650-949-7888 for more information and driving directions. Free and open to the public. Parking on campus costs $2 and you should leave some time to get a parking sticker. Co-sponsored by: * NASA Ames Research Center * The Foothill College Astronomy Program * The Astronomical Society of the Pacific. * The SETI Institute	Part of the 11th Annual Silicon Valley Astronomy Lectures The Search for Intelligent Life Among the Stars: New Strategies Dr. Seth Shostak, SETI Institute A half-century ago, astronomers began trying to "eavesdrop" for radio messages from nearby star systems. This was the start of the scientific SETI (Search for Extra-Terrestrial Intelligence) program, looking for other civilizations in the universe. The discovery of over 400 planets around other stars (including a number super-Earths) has provided a new foundation for this search. However, today, SETI researchers continue to point their telescopes at individual stars, on the assumption that technically advanced societies will inhabit a watery world like our own. Seth Shostak will describe these searches, but then ask a controversial question: Are these familiar -- and nearby -- star systems the only (or even the best) places to look for signals? He will go on to discuss some novel ideas for how we might pursue the hunt for "cosmic company" and why its possible that we might find evidence of sophisticated intelligence out there within only a few decades. Seth Shostak is Senior Astronomer at the SETI Institute, in Mountain View, California and one of the best public lecturers in astronomy today. If you have never heard one of his energetic and humorous talks, you are in for a treat. He appears regularly on national radio and television programs, hosts his own syndicated radio show called "Are We Alone?" (broadcast locally on KALW each week), and has written hundreds of popular magazine and web articles. He has an undergraduate degree in physics from Princeton University, and a doctorate in astronomy from the California Institute of Technology. He lectures on astronomy and other subjects at Stanford and other venues in the Bay Area, and for the last six years, has been a Distinguished Speaker for the American Institute of Aeronautics and Astronautics. His most recent book is "Confessions of an Alien Hunter: A Scientist's Search for Extraterrestrial Intelligence" (National Geographic). No background in science will be required for this talk. Seating is first come, first served. Past Silicon Valley Astronomy Lectures are now available in MP3 format at: http://www.astrosociety.org/education/podcast/index.html

Thursday, January 21 **7:30 pm** **Cubberley Auditorium, School of Education** **FREE; no registration required** **Open to the public** Thurs. 1/21 7:30PM-Stanford University	**When Mathematics Changed Us** At four distinct stages in the development of modern society, a mathematical development changed — in a fundamental, dramatic, and revolutionary way — how people understand the world and live their lives. Those advances occurred around 5000 bce, in the 13th century, the 16th century, and the 17th century. In this talk, Keith Devlin will look at how human life and cognition changed on each of these four occasions. Keith Devlin is known to many as "The Math Guy" on National Public Radio, and is one of the most entertaining explainers of mathematics for nonprofessional audiences speaking today. He is the author of more than twenty-eight books and travels all over the world talking about what he loves best: the beauty and complex simplicity of mathematics. **KEITH DEVLIN,** ***Executive Director, H-STAR Institute*** Keith Devlin is co-founder of the Stanford Media X Research Network. He is also a World Economic Forum Fellow and a Fellow of the American Association for the Advancement of Science. His current research focuses on the use of various media to teach and communicate mathematics to diverse audiences. Some of his other research interests include theory of information, models of reasoning, applications of mathematical techniques in the study of communication, and mathematical cognition. He has received the Pythagoras Prize, the Peano Prize, the Carl Sagan Award, and the Joint Policy Board for Mathematics Communications Award.

NIGHT SKY NETWORK -Telecon with Dr. Connie Walker on GLOBE at Night

Thursday, January 21 at 6:00 PM Pacific (9:00 PM Eastern) call the toll-free conference call line: 1-888-455-9236

Call anytime after 5:45 PM the evening of the telecon. An operator will answer and:
- You will be asked for the passcode: NIGHT SKY NETWORK
- You will be asked to give your NAME and the CLUB you belong to, and number of people listening with you.
Globe at Night 2010 will occur from March 3 - 16.

The PowerPoint to accompany Dr. Walker's talk will be available soon.
Date: Thursday, 1/21/2010
Time: 6:00 PM - 7:00 PM

Credit: Babak Tafreshi (Dark Sky Awareness)

Dr. Connie Walker is a Senior Science Education Specialist at the National Optical Astronomy Observatory (NOAO) in Tucson, Arizona. Connie was trained as an astronomer and manages the Astronomical Society of the Pacific's (ASP) Arizona Project ASTRO and Family ASTRO programs, the international ASTRO-Chile program, NOAO's partnership in GLOBE at Night, NOAO's Southern Arizona Regional Science and Engineering Fair FunFest, the solar research project in the national Astronomy Research Based Science Education program, and the Hands-on Optics (HOU) program for the Boys and Girls Clubs and lots more.

Find all the links and downloads for Dr. Connie Walker's presentation in one place:
http://nightsky.jpl.nasa.gov/club/download-view.cfm?Doc_ID=361

Congratuations to these five lucky NSN clubs whe received a GLOBE at Night Kit:
Rose City Astronomers
Stillwater Stargazers
Darien O'Brien Astronomy Club
Astronomy Club of Tulsa
Hawaiian Astronomical Society

Mark your calendar for the exciting upcoming telecon in our Monthly IYA 2009 Series:

Thursday, March 26th at 6:00 pm PT (9:00 pm Eastern) for
Kris Koenig introducing: 400 Years of the Telescope
and
Mike Simmons on: 100 hours of Astronomy

Concurrent with the debut of the PBS Special "400 Years of the Telescope" the Night Sky Network is proud to soon release the latest ToolKit, Glass and Mirrors: An Inside Look at Telescopes. Stay tuned for the release date.

Should you have any questions or need assistance, please email us at: nightskyinfo@astrosociety.org

Wednesday
January 20, 2010
7:00 p.m.

THE SEARCH FOR INTELLIGENT LIFE AMONG THE STARS: NEW STRATEGIES

DR. SETH SHOSTAK, SETI INSTITUTE

Part of the 11th Annual Silicon Valley Astronomy Lectures
Smithwick Theater
Foothill College
El Monte Road and Freeway 280
Los Altos Hills, California

Free and open to the public
$2.00 parking on campus costs and you should leave some time to get a parking sticker

Call the series hot-line at 650-949-7888 for more information and driving directions

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A half-century ago, astronomers began trying to "eavesdrop" for radio messages from nearby star systems. This was the start of the scientific SETI (Search for Extra-Terrestrial Intelligence) program, looking for other civilizations in the universe. The discovery of over 400 planets around other stars (including a number super-Earths) has provided a new foundation for this search. However, today, SETI researchers continue to point their telescopes at individual stars, on the assumption that technically advanced societies will inhabit a watery world like our own. Seth Shostak will describe these searches, but then ask a controversial question: Are these familiar -- and nearby -- star systems the only (or even the best) places to look for signals? He will go on to discuss some novel ideas for how we might pursue the hunt for "cosmic company" and why it's possible that we might find evidence of sophisticated intelligence out there within only a few decades.

Seth Shostak is Senior Astronomer at the SETI Institute, in Mountain View, California and one of the best public lecturers in astronomy today. If you have never heard one of his energetic and humorous talks, you are in for a treat. He appears regularly on national radio and television programs, hosts his own syndicated radio show called "Are We Alone?" (broadcast locally on KALW each week), and has written hundreds of popular magazine and web articles. He has an undergraduate degree in physics from Princeton University, and a doctorate in astronomy from the California Institute of Technology. He lectures on astronomy and other subjects at Stanford and other venues in the Bay Area, and for the last six years, has been a Distinguished Speaker for the American Institute of Aeronautics and Astronautics. His most recent book is "Confessions of an Alien Hunter: A Scientist's Search for Extraterrestrial Intelligence" (National Geographic).

No background in science will be required for
this talk. Seating is first come, first served.
We expect significant crowds, so come a little early.

The lectures are co-sponsored by:
* NASA Ames Research Center
* The Foothill College Astronomy Program
* The Astronomical Society of the Pacific.
* The SETI Institute

Past Silicon Valley Astronomy Lectures are now available
in MP3 format at:
http://www.astrosociety.org/education/podcast/index.html

San Francisco Amateur Astronomers
P.O. Box 15097
San Francisco, CA 94115

Information Hotline: (415) 289-6636

Web Page: www.sfaa-astronomy.org

Sharing the Wonders of the Universe

Has your membership expired? Your mailing label includes the month and year through which your membership is paid. If it is past, your membership has expired and this may be your last issue.

MEMBERSHIP APPLICATION

Membership is billed for each upcoming year on June 30. Between January 1 and June30, new members pay one half the amount listed below

Membership Categories (Check one):
_____ $10 Youth/Student _____ $40 Institutional
_____ $25 Individual _____ $75 Supporting
_____ $30 Family

Information:
Name(s) _____
Address _____
City _____
State _____ **Zip** _____
Home Phone _____
E-Mail _____

You can choose E-Mail (Recommended) or hard copy delivery for Above the Fog(Check one)

_____ **E-Mail** _____ **Hard Copy**

Please make checks payable to San Francisco Amateur Astronomers and mail to:

San Francisco Amateur Astronomers
POB 15097
San Francisco CA 94115