

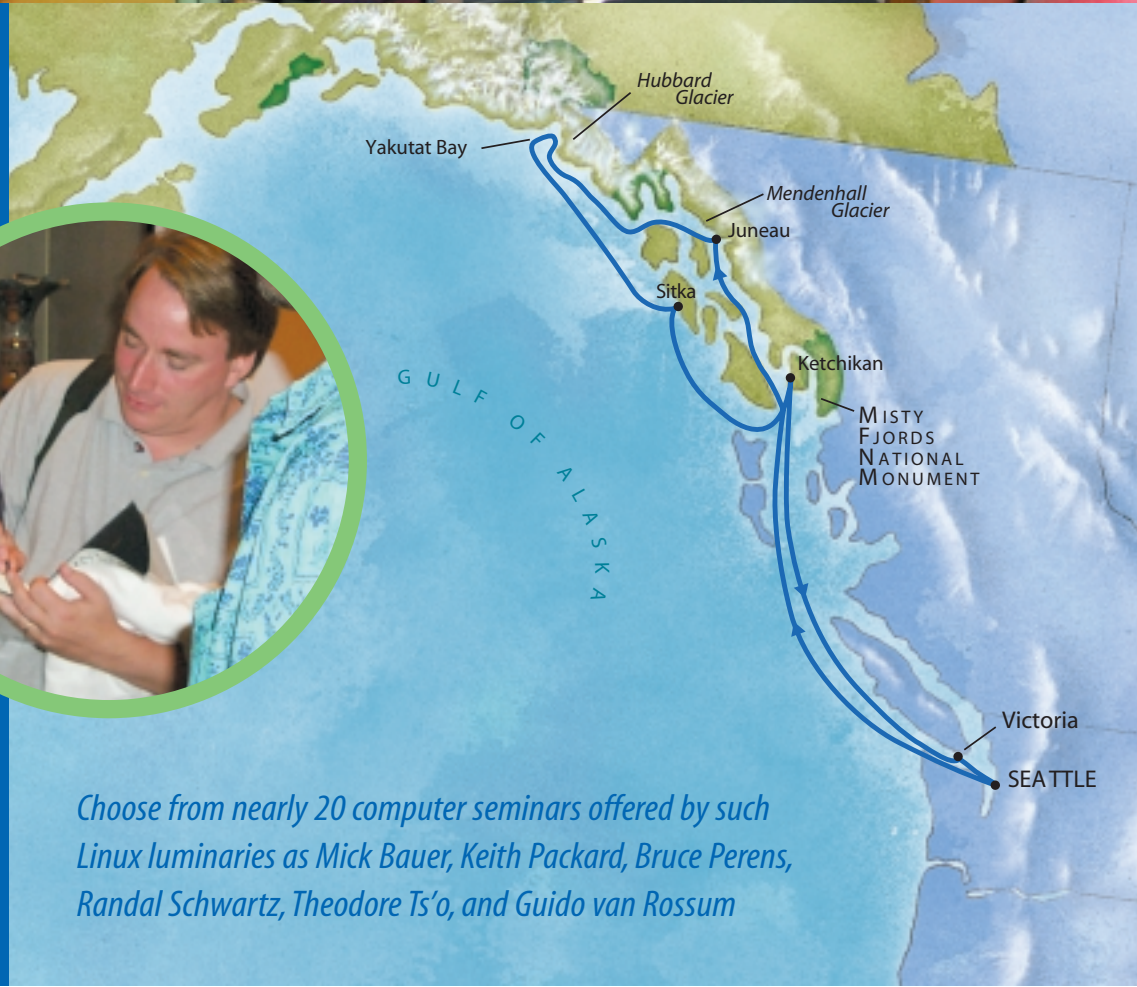
September 13–20, 2003

Join Linux Again...  
...this year in Alaska

# Linux Lunacy<sup>TM</sup> 2003



*Take your mind on a vacation! Sail Alaska's famous Inside Passage. Enjoy a fascinating itinerary. Be part of a unique conference, and do it all on a luxurious cruise ship.*



*Choose from nearly 20 computer seminars offered by such Linux luminaries as Mick Bauer, Keith Packard, Bruce Perens, Randal Schwartz, Theodore Ts'o, and Guido van Rossum*

## SPEAKERS

**Mick Bauer**, Security Editor of Linux Journal, is an information security consultant for Upstream Solutions, Inc. in Minneapolis, Minnesota. He is lead author of Linux Journal's monthly "Paranoid Penguin" security column, and author of the book *Building Secure Servers With Linux* (O'Reilly & Associates).

Mick's areas of expertise include Linux security and general Unix security, network (TCP/IP) security, security auditing, and the development of security policies and awareness programs.

**David Fetter** has worked in the San Francisco Bay Area for the past six years in various dot-coms, non-profits and educational institutions including Match.com, bravekids.org, and the UC Berkeley Extension. He has worked extensively with Oracle, PostgreSQL, MySQL, Perl, PHP, PL/SQL, PL/PgSQL, vi, and ErWin on large transaction processing systems — some of them with hundreds of thousands of page views per day, others designed for worldwide use. He has also been called in to solve critical database problems on extremely aggressive schedules, usually with much success.

In his free time, he does ceili dancing, brews beer and mead, rides his bicycle, and helps run several organizations for computer professionals including the San Francisco Perl Users' Group and the San Francisco Wireless Users' Group.

**Gregory Haerr** is the founder and CEO of Century Software, [www.centurysoftware.com](http://www.centurysoftware.com), a leader in UNIX connectivity solutions, and Century Software Embedded Technologies ([www.embedded.centurysoftware.com](http://www.embedded.centurysoftware.com)), a leading developer of core technologies for the worldwide embedded Linux applications market. Greg also founded and maintains the Microwindows Project, an open-source project dedicated towards providing a modern graphical windowing environment for embedded Linux systems. An expert UNIX and Windows programmer specializing in operating systems, interpreter, and graphical windowing system designs, Greg earned a degree in Computer Science from the University of California, San Diego in 1980.

**Keith Packard** has been a member of the XFree86 core team for the last few years, building a new rendering system for X applications. He is employed by Hewlett-Packard working at the Cambridge Research Laboratory in Massachusetts. Formerly at the MIT X Consortium, he has worked with the X window system since 1986.

## PROGRAM

*You may select any combination of seminars so long as you do not select more than three day's worth of sessions. The conference fee is \$995 and includes all courses, course materials, and the Wizard's Cocktail Party.*

*Spouses and guests are welcome to attend the parties and all open or special events.*

## PROGRAMMING

### Learning Perl (full day)

Speaker: **Randal Schwartz**

This course is based on Randal's Popular O'Reilly Nutshell book, *Learning Perl*. The course presumes no prior knowledge of Perl, and exposes the course participants to what we call the "middle two-thirds" of Perl — those items that are needed to accomplish many common tasks, and to lay the groundwork for more advanced study on an as needed basis.

### Learning and Using C for Programming Linux (half day)

Speaker: **Gregory Haerr**

This talk introduces the C programming language to Linux users and programmers. A complete tutorial, covering all C constructs and the standard library, is given. In addition, using the Make system and using the package configuration process is covered. With this information, you should be able to understand and use C to build open source software packages on your system, as well as creating your own programs. This course assumes no prior knowledge of C, but having some programming experience with other languages is required.

### C Programming Tricks of the Trade (quarter day)

Speaker: **Gregory Haerr**

In this talk we'll review the tips, tricks, and techniques for producing good code learned over the past 20 years. Understanding what the compiler produces for various C constructs greatly helps writing powerful C code. We'll also cover portability issues between different processors, and the differences between the Win32 and Linux C compilers.

After this talk you'll not only have a good understanding of how to implement algorithms in ways to guarantee better performance, but also how C compilers map the language onto the processor architecture. Prior knowledge of C programming is assumed.

### Introduction to Python (half day)

Speaker: **Guido van Rossum**

Python, sometimes considered the new kid on the block of scripting languages, is neither: its 13+ years give it a respectable age in Internet time, and it is much more than a scripting language! A complete interactive object-oriented language, it is suitable for many areas of programming where fast turnaround time is important: Web scripting, indeed, but also rapid development of user interfaces, distributed applications, and steering scientific computations; even entire systems such as Zope are developed in Python.

This introduction teaches the basics of Python programming to those with prior programming experience. You don't have to be a Java or C++ expert; C or Pascal as a background will do just fine! After completing this course, you should be able to write simple Python programs, define your own classes, and understand the basics of using Python's standard library.

### Application Development with Python (half day)

Speaker: **Guido van Rossum**

This class is a continuation of the Introduction to Python class. It will teach how to write larger Python programs and work through examples taken from CGI and GUI programming.

**Prerequisites:** Either the Introduction to Python or some basic experience using Python. I promise that even experienced Python users will learn a thing or two in this class!

### Designing Great Shared Libraries (quarter day)

Speaker: **Theodore Ts'o**

The magic of dynamic linking allows shared libraries to be replaced without requiring the recompilation all the programs that use them. However, this is true only if proper care is taken when designing the data structures and interfaces presented by these libraries. Many open source projects have unfortunately not taken this care, with the result that incompatible changes are made to shared library interfaces — as often as monthly. This talk will cover design principles that allow for portable, stable, and yet extensible shared library interfaces. It will also cover some of the interesting tricks that can be done with shared libraries that make application programs more useful, and to enable greater code reuse in the Open Source world.

## LINUX INTERNALS

### More Than You Ever Wanted to Know About Filesystems (half day)

Speaker: **Theodore Ts'o**

This will be an in-depth talk about filesystems. It will start with primitive filesystems, such as MS-DOS "FAT" filesystems, and cover classical UNIX filesystems, and then move on to more advanced, modern filesystems which are available today on Linux and other operating systems. Topics such as journaling, log-structured filesystems, robustness, and filesystem performance issues will all be covered. Audience participation is welcome so bring your questions!

### Introduction to the Linux Kernel (full day)

Speaker: **Theodore Ts'o**

This talk will be an introduction to the Linux kernel, and will touch upon the basic structure of the kernel, what features it provides, and the most important algorithms it employs. It will not contain any detailed examination of the source code, but will, rather, offer an overview and roadmap of the kernel's design and functionality. Topics covered will include the Linux scheduler, virtual memory system, filesystem and I/O layers, and networking stacks.

### Common Linux Vulnerabilities and Their Ramifications (half day)

Speaker: **Mick Bauer**

You probably already receive and read vulnerability reports for your Linux distribution of choice (if you don't, you should!). And hopefully, you apply patches whenever one of these bug reports applies to your systems. But what happens if you don't? In this session the speaker demonstrate some common Linux exploits, including corresponding defensive techniques. See, firsthand, the consequences of sloppiness and inattention! No Script Kiddies will be harmed in this production, at least not permanently.

### Paranoid Penguin's Choice: Outstanding Linux Security Tools (half day)

Speaker: **Mick Bauer**

Linux benefits from a wealth of outstanding security tools. These include hardening-scripts, intrusion detection systems, system integrity checkers, security scanners, and port scanners. In this session I'll describe some of my favorites, with a demonstration or two thrown in for no extra charge.

## THE "HOW NOT TO PROGRAM IN C++" QUIZ SHOW

How well do you know C++? Match wits with other contestants to win tee-shirts and other fabulous prizes in this Second Annual event hosted by C programmer author Stephen Oualline.



## Practical Security Log Management (half day)

Speaker: **Mick Bauer**

Whatever else you do to secure a host or network, having good audit trails is absolutely crucial, and actively monitoring and responding to them is equally so. In this session I'll show how you can use syslog, syslog-ng, swatch, and other tools that work well in Linux to effectively monitor and respond to system security events.

## Using Fonts in Linux Applications (half day)

Speaker: **Keith Packard**

With an initial focus on X application developing with the new Xft library, this seminar will branch out to include font configuration, printing, and higher level libraries needed to take full advantage of the font technologies available in the Linux environment. Learn how font APIs have been turned on their heads to provide world-class features while improving performance and ease of use.

## Beautiful Graphics in X (half day)

Speaker: **Keith Packard**

A focus on current library developments will keep this seminar right on the leading edge of desktop graphics, starting with a brief introduction to the Plan-9 inspired Render extension and leading through the new Xr library which exposes a deceptively simple interface while providing the power necessary to implement the SVG and PDF 1.4 rendering models with hardware acceleration. Plenty of sample applications will show different tricks of the trade and give participants tools to start their own development with.

# SPECIAL SESSIONS

## Linux Databases (half day)

Speaker: **David Fetter**

At some point in every project, you need some kind of persistent store for structured data. But before you jump and buy Oracle or download MySQL, attend this seminar! The speaker has seen a lot of projects where people made poor choices of database management systems which caused the projects to fail, deadlines to slip by years, and/or budgets to be exceeded by millions of dollars.

In this seminar you'll learn:

- What a database management system is.
- What SQL is.
- What a relational database management system is.
- The ups and downs of MySQL, Postgres, and Oracle.
- How to determine which database product best suits your situation.
- What developers and DBAs can do to help one another.
- Some marvelous database project failures — what they should have known to avoid disaster.
- How to walk around the space — it's a mine-field unless you know what you're doing.
- Some useful tools and techniques.

## Linux in Your Pocket (half day)

Speaker: **Bruce Perens**

Demonstration of OpenZaurus (the "free," community-developed software load for the Sharp Zaurus), including its applications, 802.11, Bluetooth, interfacing to cameras, and other accessories. OpenZaurus is related to the two distributions that run on the iPaq: Familiar, and Intimate; and like them, is Debian-based. In addition to the PIM and other applications that you would expect to be on a palmtop, OpenZaurus can run vi, emacs, just about any text-mode application, and most Qt GUI applications; the user can also install X and GNOME.

The speaker has a 512mb SM card in his Zaurus, and a Bluetooth link to his GPRS phone and 802.11 card. The bottom line is, the OpenZaurus is compatible with pretty much anything that runs on the GNU/Linux desktop, and that the pocket-sized Zaurus, with its own Internet connection that works in 210 countries, is as powerful as many desktop systems.

## GPRS and GSM International Wireless Connectivity for the Road Warrior (half day)

Speaker: **Bruce Perens**

Get wireless internet connectivity in 210 countries, including the United States! Learn about the hardware, how to interface it to your Linux system, the carriers and their rate plans, quality of service, using Bluetooth to interface your phone and computer, and the palmtop GPRS connection.

## Online Collaboration: Understanding It, Picking It, and Making It Work in the Workplace (half day)

Speaker: **Charles Roth**

The dot-com roller coaster is over, and the "groupware" and "C(collaborative)-commerce" hype is dust. Now let's see what people are really doing with online collaboration.

It's not document sharing, it's not calendars, it's not scheduling. It is about shared creation of knowledge, information, and (most importantly) consensus.

How do you build a new design document, together? How do you really share knowledge without everyone having to know everything? How do you thrash out group decisions without spending the entire day in meetings?

Well, you can't do it all online, any more than you can drive your car up the stairs to your office. But the technology *can* and *does* help — a lot.

In this seminar, you'll learn:

- What you *can* do with online collaboration
- How it all began — the events and projects that kick-started online meetings (including Nixon's wage-price freeze!).
- The state-of-the-art of collaboration software, and where it's headed.
- The strengths and weaknesses of proprietary and open-source collaboration tools, and how to choose among them.

- What makes any collaboration tool succeed — or fail — in the workplace.

After the seminar, a BOF session will discuss, brainstorm, flame, and otherwise have fun with a completely rebuilt, open-source collaboration tool that the speaker is developing.

## Introduction to Zope (quarter day)

Speaker: **Guido van Rossum**

Zope is the leading Open Source Web application server, created by Zope Corporation. Zope is written almost completely in Python and can be extended using scripts written in Python and a variety of other languages. This tutorial teaches how to create dynamic websites using Zope. We will show several ways to add dynamic features to a site, from simple templates via scripts to full-featured "products" written in Python.

# SPEAKERS (continued)

**Bruce Perens** is best known as the creator of the Open Source definition. He is:

- An outspoken representative of the Free Software community, working for and with a number of non-profit organizations.
- An independent consultant helping corporations work with Free Software.
- A senior scientist of the Cyber Security Policy Research Institute, helping to incorporate Free Software into our national security policies and infrastructure.
- Series editor of the "Bruce Perens' Open Source Series"; book line for Prentice Hall publishers.

**Kara Pritchard**, Director of Exam Development for the Linux Professional Institute ([www.lpi.org](http://www.lpi.org)) has been involved in the Linux community since 1995. Her experience ranges from working with LUGs worldwide via Linux.com and LinuxUsersGroups.org, to publishing titles such as the RHCE Exam Cram, to being the president of her own Linux consulting and services business.

Kara became involved with the Linux Professional Institute (LPI) in 1999 as the Assistant Director of Exam Development. She was promoted to Director in 2001 and accepted a position on LPI's Board of Directors. Kara obtained her RHCE in 1999 and also sat as an Subject Matter Expert for CompTia's Linux+ development program, broadening her experience with Linux Certification.

Kara's personal time is spent finding non-geek time with her husband Steven, and enjoying her young daughter, Emma.

**Charles Roth** is the designer of "Caucus," an open source conferencing/forum/collaboration tool, and the founder of CaucusCare.com. (A variety of online communities, including Howard Rheingold's BrainStorms, The MetaNet, ECHO, and the Santa Monica PEN have used Caucus as their platform. Caucus business customers have included IBM, HP, British Telecom, and the U.S. Government.) Along the way he's become an expert on collaboration software, and what software and cultures make a group or a community effective ... or not.

Charles and Caucus are veterans of many transitions: from text-only to the web, from the portability/proprietary-OS wars of the 80's to \*nix everywhere, and from small business to dot-com/dot-bomb madness (and back again). With Doc Searls he co-wrote the BuzzPhaser ([www.buzzphaser.com](http://www.buzzphaser.com)). Charles can code in Fortran, 360 assembler, Snobol, PL/1, Algol, C, Javascript, Java, Perl, and Python ... not to mention DEC-10 Macro, PDP-11 assembler, FLEX, APL, Net.Data (ugh), and x86 assembler.

Charles also teaches English country dance, has played a child psychologist, a senile Roman, and a rabid fundamentalist on the stage, and taught Capt' Neil, in the early '70s, how to program.

**Randal L. Schwartz** is a two-decade software industry veteran — skilled in software design, system administration, security, technical writing, and training. He coauthored the "must-have" standards: *Programming Perl*, *Learning Perl*, *Learning Perl for Win32 Systems*, and *Effective Perl Programming*, as well as writing a regular column for UnixReview magazine. Since 1985, Randal has owned and operated Stonehenge Consulting Services, Inc.

**Theodore Ts'o** has been a Linux kernel developer since almost the very beginning of Linux — he implemented POSIX job control in the 0.10 Linux kernel. He architected and implemented Linux's tty layer, and works with Stephen Tweedie on the ext2/3 filesystem. Outside of the kernel, he is also a maintainer of the e2fsck filesystem consistency checker, and the other ext2/3 filesystem utilities. Theodore is a founding board member of the Free Standards Group, which is responsible for promulgating the Linux Standards Base. Theodore is current employed by IBM's Linux Technology Center.

**Guido van Rossum** is the creator of Python, one of the major Open Source scripting languages. He created Python in the early 1990s at CWI in Amsterdam and is still actively involved in the development of the language. In 1995, he moved to the US where he now lives and works in Reston, Virginia. He now works for Zope Corporation, the makers of the web application platform Zope, as Director of PythonLabs, the core Python development group hosted by the same company (Zope is written in, and extensible via, Python). In November of 2001, his wife Kim gave birth to their son Orlijn, giving them much joy and distraction.

## PRICING AND BOOKING INFORMATION

**Course Fees:** \$995. Only passengers booked through Geek Cruises will be admitted.

**Deposit:** \$400 per person, due at time of booking.

Cabin Type	Cruise Rate
Standard Inside	\$ 999 (GS* available)
Better Inside	\$1,099 (GS* available)
Standard Outside	\$1,499 (GS* available)
Better Outside	\$1,599 (GS* available)
Mini Suites	\$1,999

**3rd and/or 4th Person Rate:** ages 19 and older, \$649; ages 2 – 18, \$549; under 2 years old, \$499.

**Single Occupancy:** 150% for inside and outside cabins and 200% for mini-suite and above.

**Port Charges and Taxes:** \$165 per person (subject to minor change).

**Full payment is due on June 15, 2003** (or, if you book after June 15, at the time of booking).

**Foreign Booking Fees and Additional Payment Information:** There is a foreign booking charge of \$60 per foreign residence (\$35 per Canadian residence). There is a \$25 charge for returned checks.

**Air Add-ons:** Airfare from most major cities is available through the cruise line. You can call our office for this pricing. (These rates include transfers to/from the dock/airport.) In most cases, however, you will find better airfares on your own. Online travel sites such as Expedia.com or Travelzoo.com are excellent resources. Alternatively, if you prefer to book with a "real" person (and get the same rates available via the online services, we recommend GTI (800-715-4440 or 800-716-4440, agent PIN #54575) because of their 7-day-a-week office hours and their lowest-fare guaranteed service option ("Aircare Program").

**Pre- and Post-cruise Hotel Stays:** Sightsee Seattle! The hotel will be close to the dock. If we book your Seattle hotel, transfers from the hotel to the dock are included.

☺ Physically challenged available

**\*Guaranteed Share (GS) Fares:** This plan is for passengers who are coming on a Geek Cruise by themselves and wish to share a cabin with another Geek Cruises passenger in an inside or outside cabin only. The prices are the same as the per person double occupancy rates. Share Passengers who smoke are not to do so in the cabin, unless okayed by fellow roommates. We try to match passengers with someone close in age, whenever possible. Note: Holland America will not accept any booking unless a fully completed Reservation Form is accompanied with a per-person deposit:

[http://www.geekcruises.com/pdf/LL\\_III\\_BIS.pdf](http://www.geekcruises.com/pdf/LL_III_BIS.pdf)

or online via

[https://www.dca.net/geekcruises.com/LinuxIII\\_bookingform.html](https://www.dca.net/geekcruises.com/LinuxIII_bookingform.html)

## LINUX LPI\* LEVEL 1 CERTIFICATION (24 HOURS, INCLUDING TAKING EXAMS 101 AND 102)

**Speakers: Steven Pritchard and Kara Pritchard**

Spend three days with the anticipated second edition of O'Reilly's *LPI in a Nutshell* (revised for new exam objectives) and its coauthor, Steven Pritchard to study for your LPI Level 1 Linux certification. You can spend a day each reviewing topics for your 101 and 102 LPIC exams, with your third day customized to focus on your interests prior to taking your exams. You will then have the opportunity to complete your 101 and 102 exams administered by LPI Director of Exam Development, Kara Pritchard, the following two evenings of your cruise.

**Session 1** will review topics related to Linux hardware and architecture; installation and package management; GNU and Unix commands; devices and filesystems; and X as specified by LPI's Level 1, Exam 101 Area Objectives (<http://www.lpi.org/p-obj-101rel2.html>).

**Session 2** will review topics related to the Linux kernel; boot processes; printing; documentation; shells and scripting; administrative tasks; networking fundamentals and services; and system security as specified by LPI's Level 1, Exam 102 Area Objectives (<http://www.lpi.org/p-obj-102rel2.html>).

**Session 3** will be a combined review, focusing on any areas that you need extra practice prior to taking your exams (Sessions 4 and 5).

**Sessions 4 and 5** will be two-hour sessions (90 minutes per exam) to complete your LPI Level 1 certification (administered by LPI Director of Exam Development, Kara Pritchard).

For your study sessions, expect rapid paced review to cover material with flexibility to focus on your individual area needs for obtaining your LPIC-1 status. Your study sessions will be more rewarding if you have a laptop available for practice. O'Reilly's *LPI in a Nutshell* titles will be provided.

**\*About Linux Professional Institute**  
The Linux Professional Institute (LPI) develops professional certification for the Linux operating system independent of software vendors or training providers. Established as an international non-profit organization in 1999 by the Linux community, LPI develops accessible, internationally-recognized certification programs which have earned the respect of vendors, employers, and administrators. LPI's activities involve hundreds of volunteers and professionals throughout the world in many different capacities, and the group encourages active public involvement through mailing lists and its website at [www.lpi.org](http://www.lpi.org). LPI's multi-level program of exams is administered globally through Virtual University Enterprises (VUE) and Prometric testing centers. LPI's major financial sponsors are Platinum Sponsors Caldera International, IBM, Linuxcare, Maxspeed, SGI, SuSE Linux AG, and TurboLinux as well as Gold Sponsors Hewlett-Packard and Wave Technologies.

DAY	PORT	ARRIVE	DEPART	CONFERENCE SESSIONS
Saturday, 9/13	Seattle, Washington	—	5pm	—
Sunday, 9/14	Scenic cruising Queen Charlotte Islands	—	—	8:30am – noon & 1:30pm – 5pm
Monday, 9/15	Juneau, Alaska	noon	10:30pm	8:30am – noon
Tuesday, 9/16	Scenic cruising Hubbard Glacier	—	—	8:30am – noon & 1:30pm – 5pm
Wednesday, 9/17	Sitka, Alaska	7am	6pm	6pm – 8pm
Thursday, 9/18	Ketchikan, Alaska	7am	3pm	3pm – 8pm
Friday, 9/19	Victoria, British Columbia	8pm	midnight	8:30am – noon & 1:30pm – 5pm
Saturday, 9/20	Seattle, Washington	7am	—	—

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**LINUX  
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