

KIC 007287786

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007287786-01	OBS	No	3.993158	133.168337	23.4	11.586	10.3	10.3	2.90	7780	1.60	6874.21
007287786-02	OBS	No	365.087278	187.118633	250.6	17.969	7.9	7.7	2.90	7780	4.81	16.69
007287786-03	OBS	No	3.992842	131.856231	18.7	10.288	8.0	8.1	2.90	7780	1.50	6874.94

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007287786-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
007287786-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007287786-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

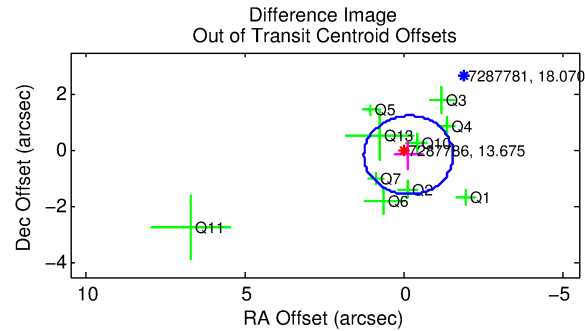
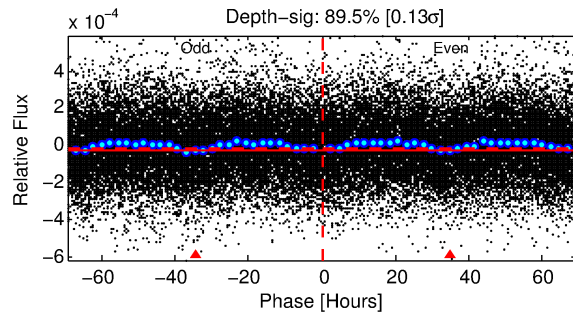
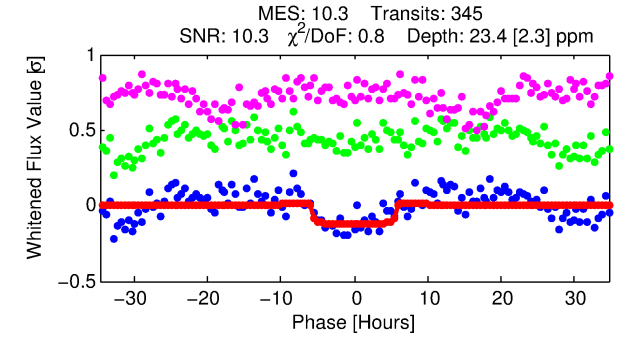
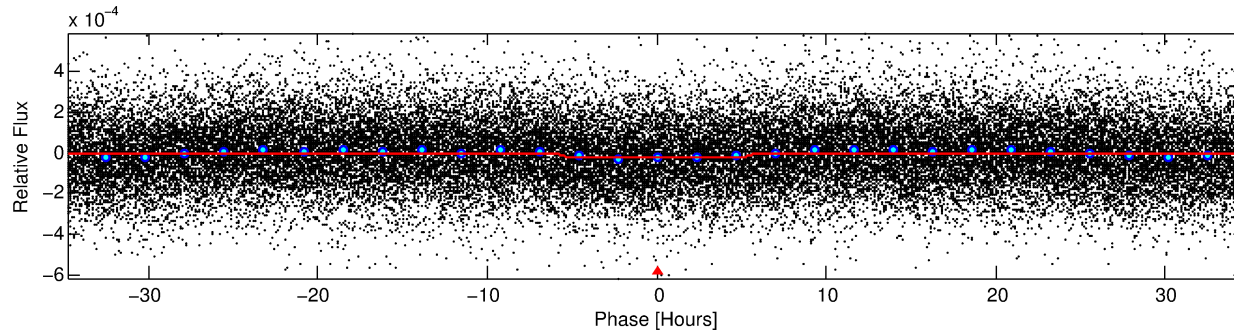
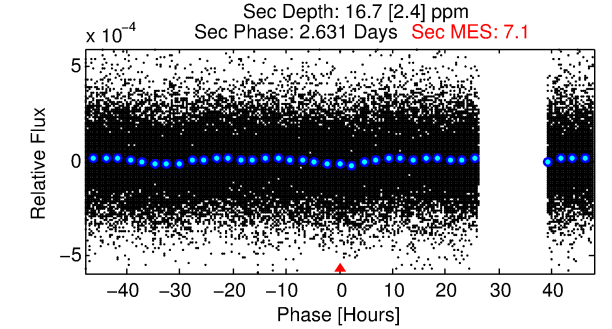
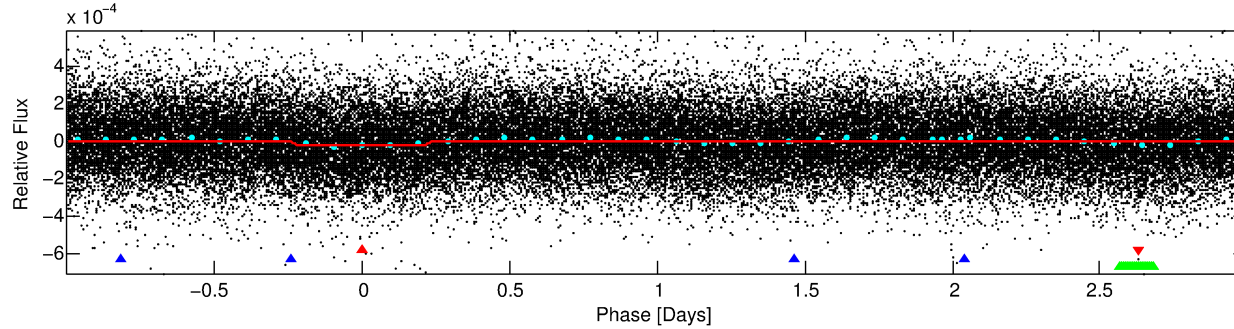
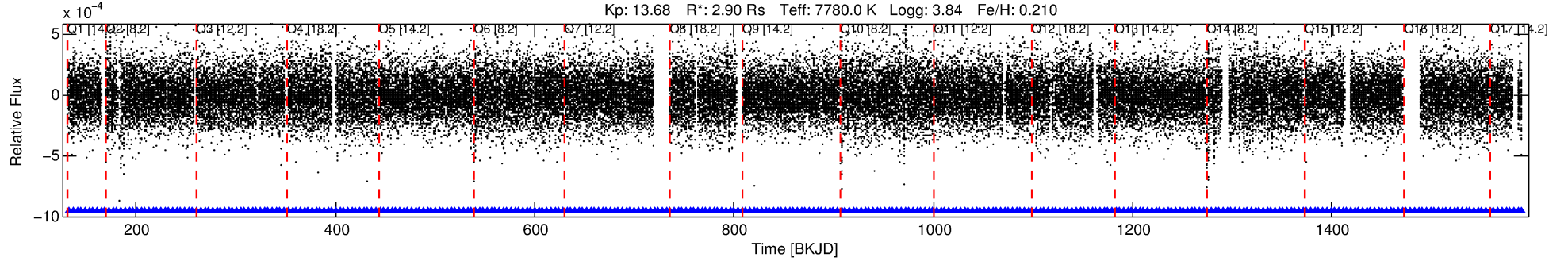
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007287786-01

No Significant Match Found

DV One-Page Summary

KIC: 7287786 Candidate: 1 of 3 Period: 3.993 d



DV Fit Results:

Period = 3.99316 [0.00006] d
Epoch = 133.1683 [0.0105] BKJD
Rp/R* = 0.0051 [0.0011]
a/R* = 1.58 [1.22]
b = 0.88 [0.33]
Seff = 6874.21 [2379.56]
Teq = 2322 [201] K
Rp = 1.60 [0.52] Re
a = 0.0633 [0.0141] AU
Ag = 14.34 [8.03] [1.66σ]
Teffp = 6986 [779] K [5.80σ]

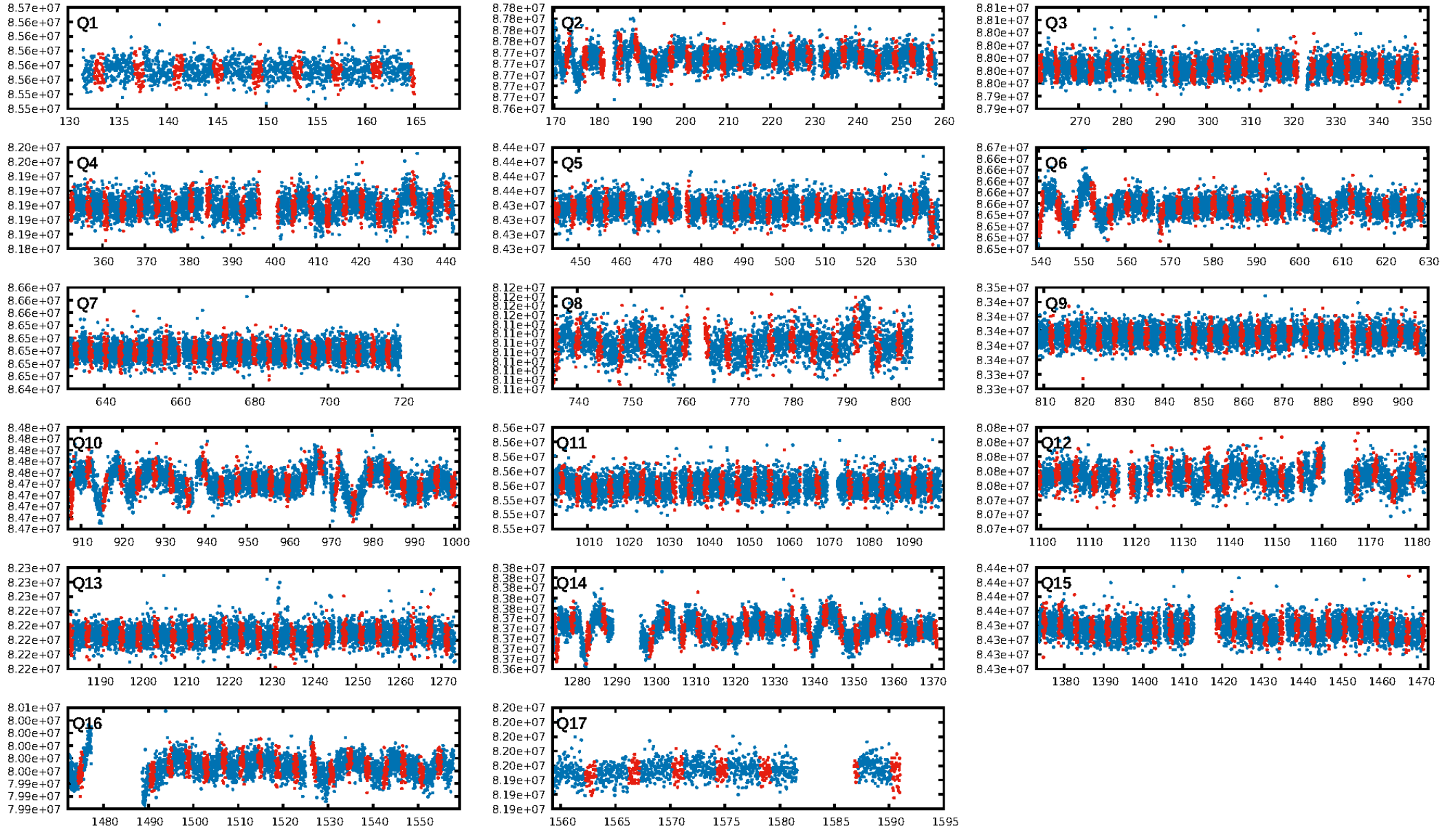
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [405.34σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 9.55e-23
RollingBand-fgt: 1.00 [329/329]
GhostDiagnostic-chr: 2.793
Centroid-sig: 59.8%
Centroid-so: 0.761 arcsec [0.58σ]
OotOffset-rm: 0.211 arcsec [0.45σ]
OotOffset-st: 3/3/1/3 [10]
KicOffset-rm: 0.221 arcsec [0.47σ]
KicOffset-st: 3/3/1/3 [10]
DiffImageQuality-fgm: 0.80 [8/10]
DiffImageOverlap-fno: 1.00 [17/17]

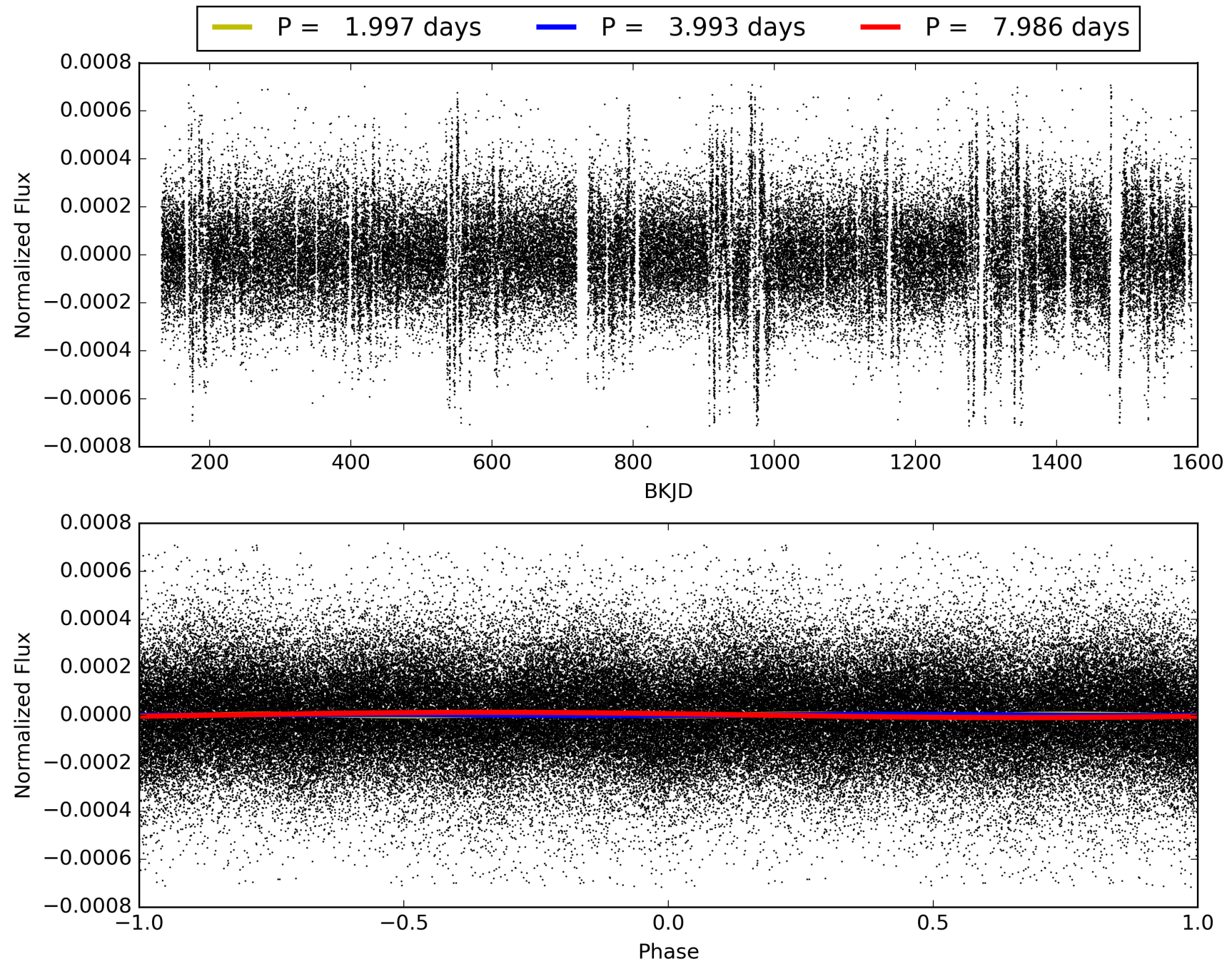
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:24:12 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007287786-01, PDC Light Curves

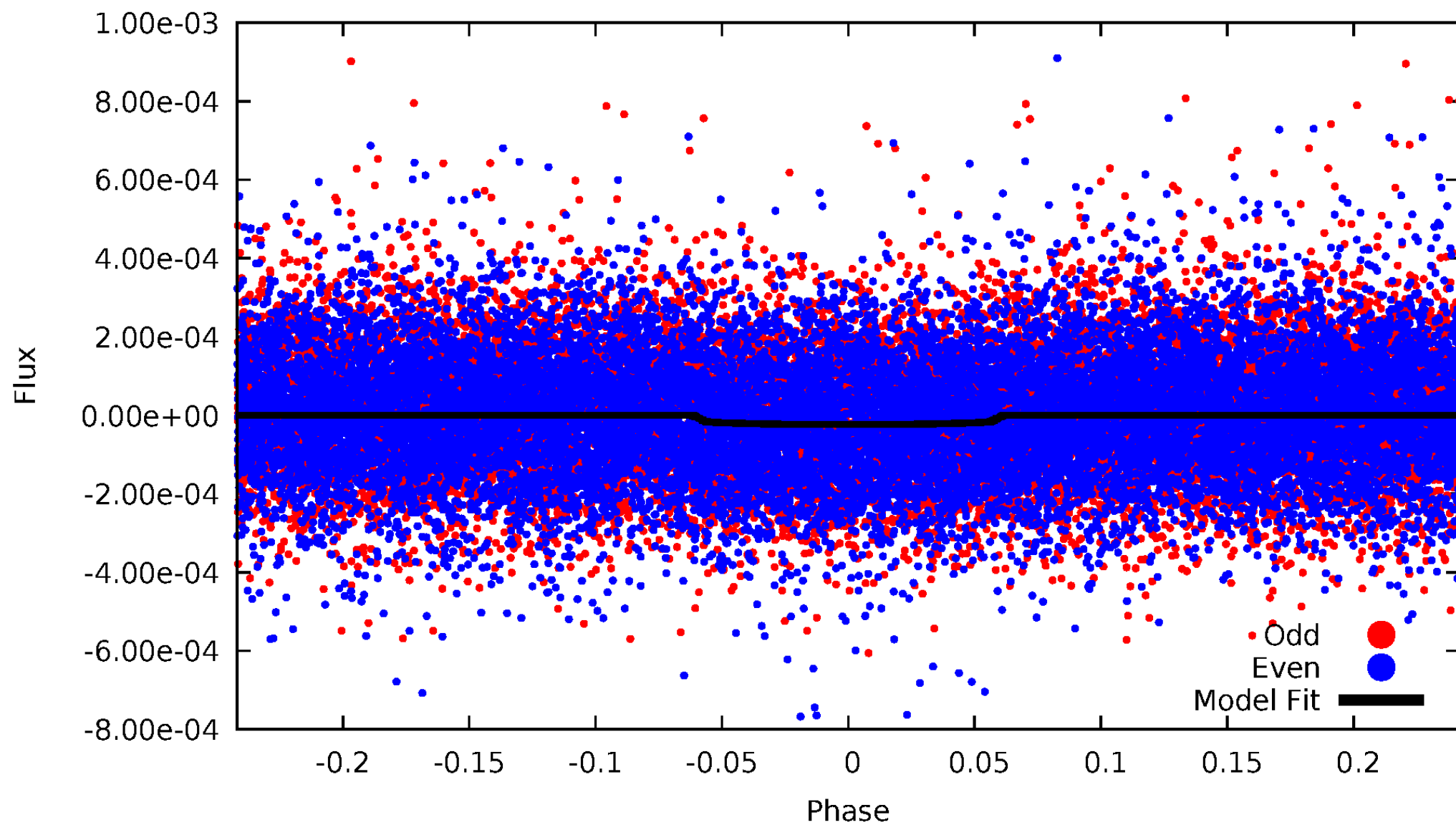


TCE 007287786-01



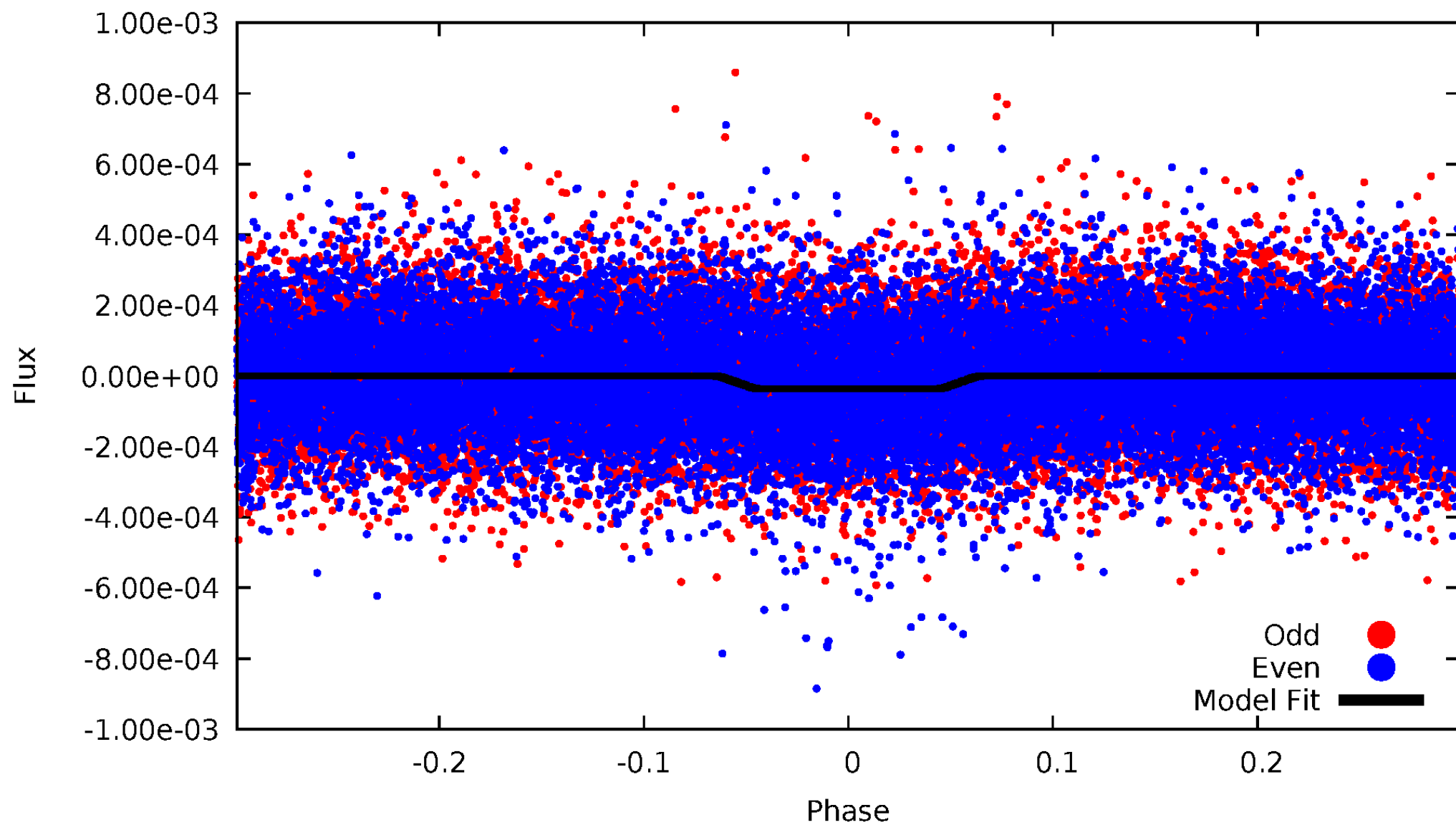
DV Odd/Even

TCE 007287786-01

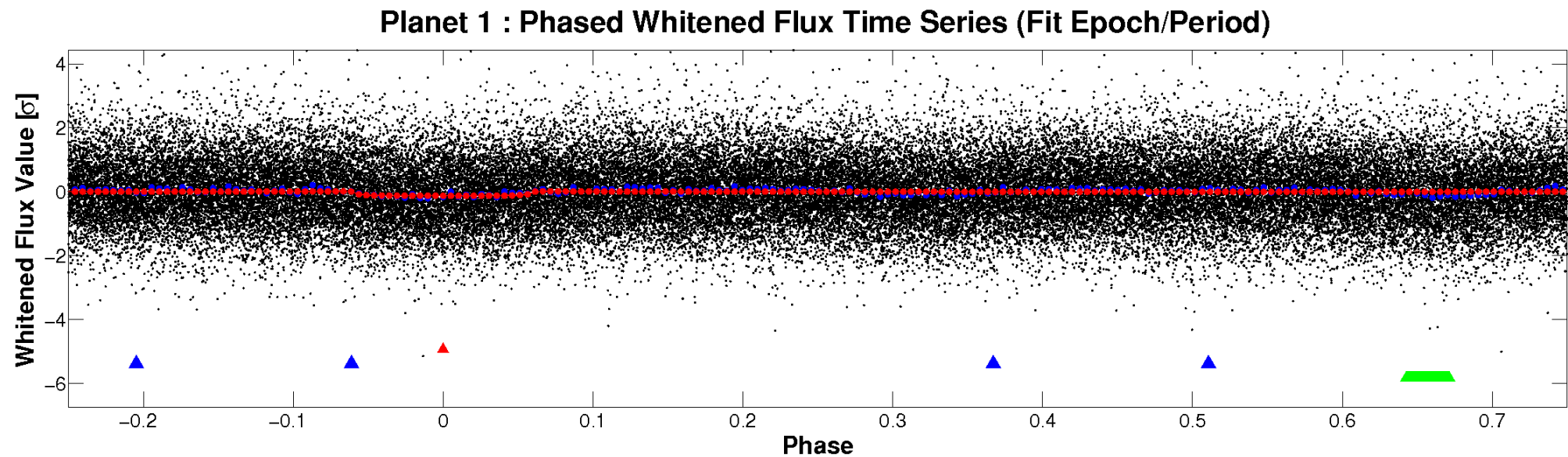
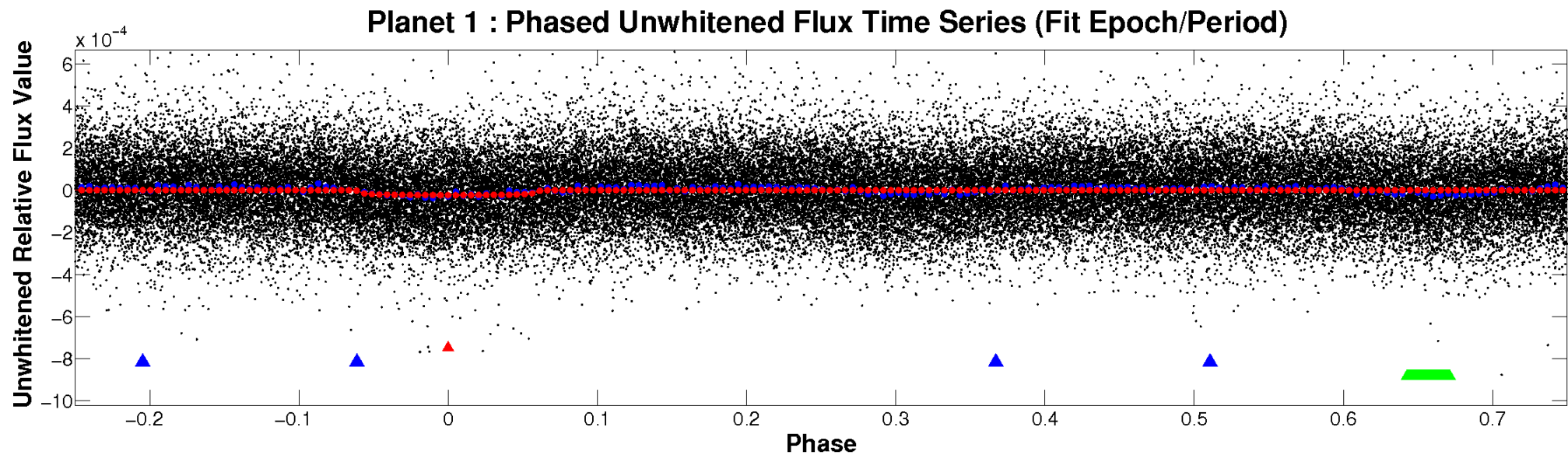


ALT Odd/Even

TCE 007287786-01

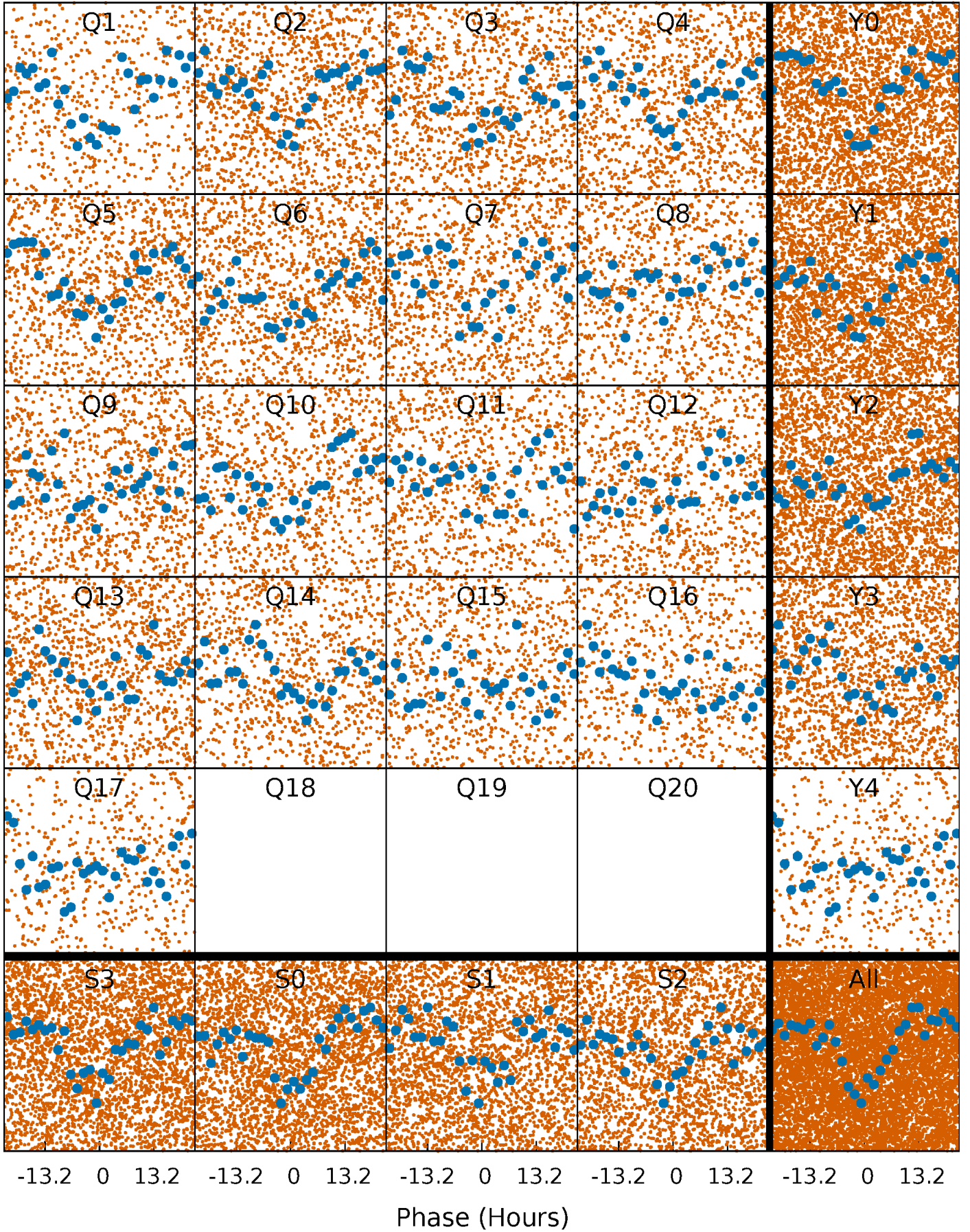


Non-Whitened Vs. Whitened Light Curve



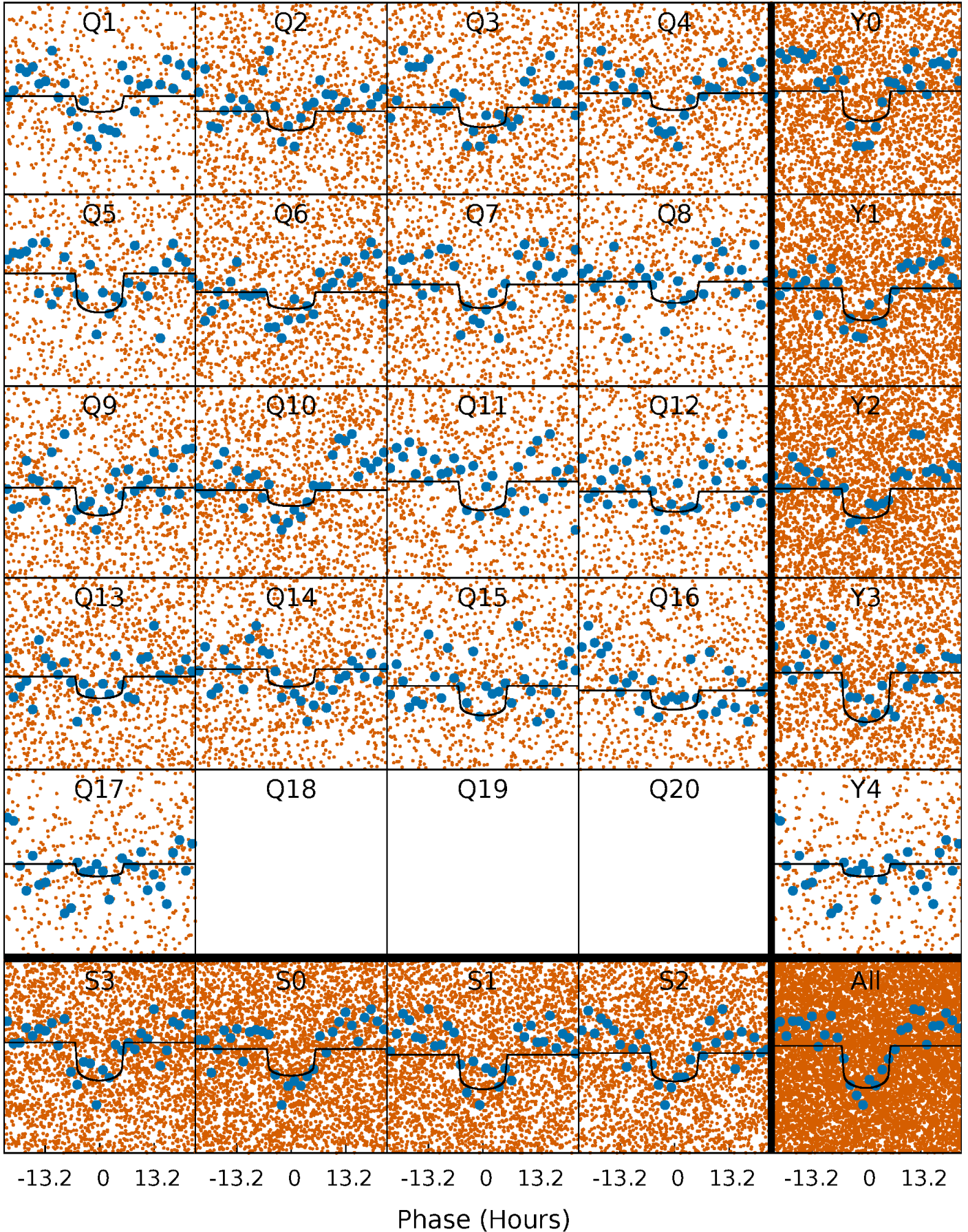
PDC Quarter-Phased Transit Curves

TCE 007287786-01 P= 3.993158 Days $T_0=133.168337$ (BKJD)



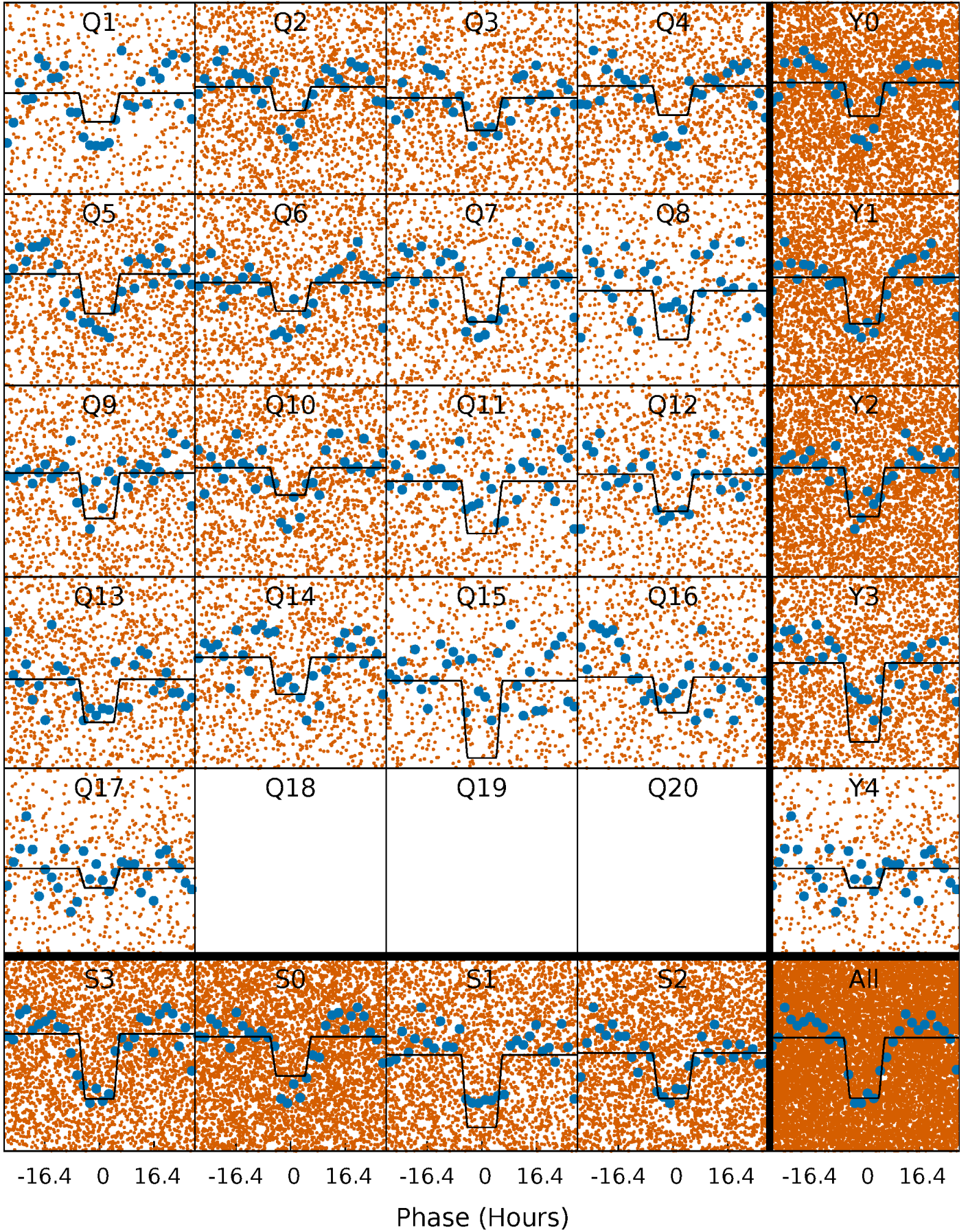
DV Quarter-Phased Transit Curves

TCE 007287786-01 P= 3.993158 Days $T_0=133.168337$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

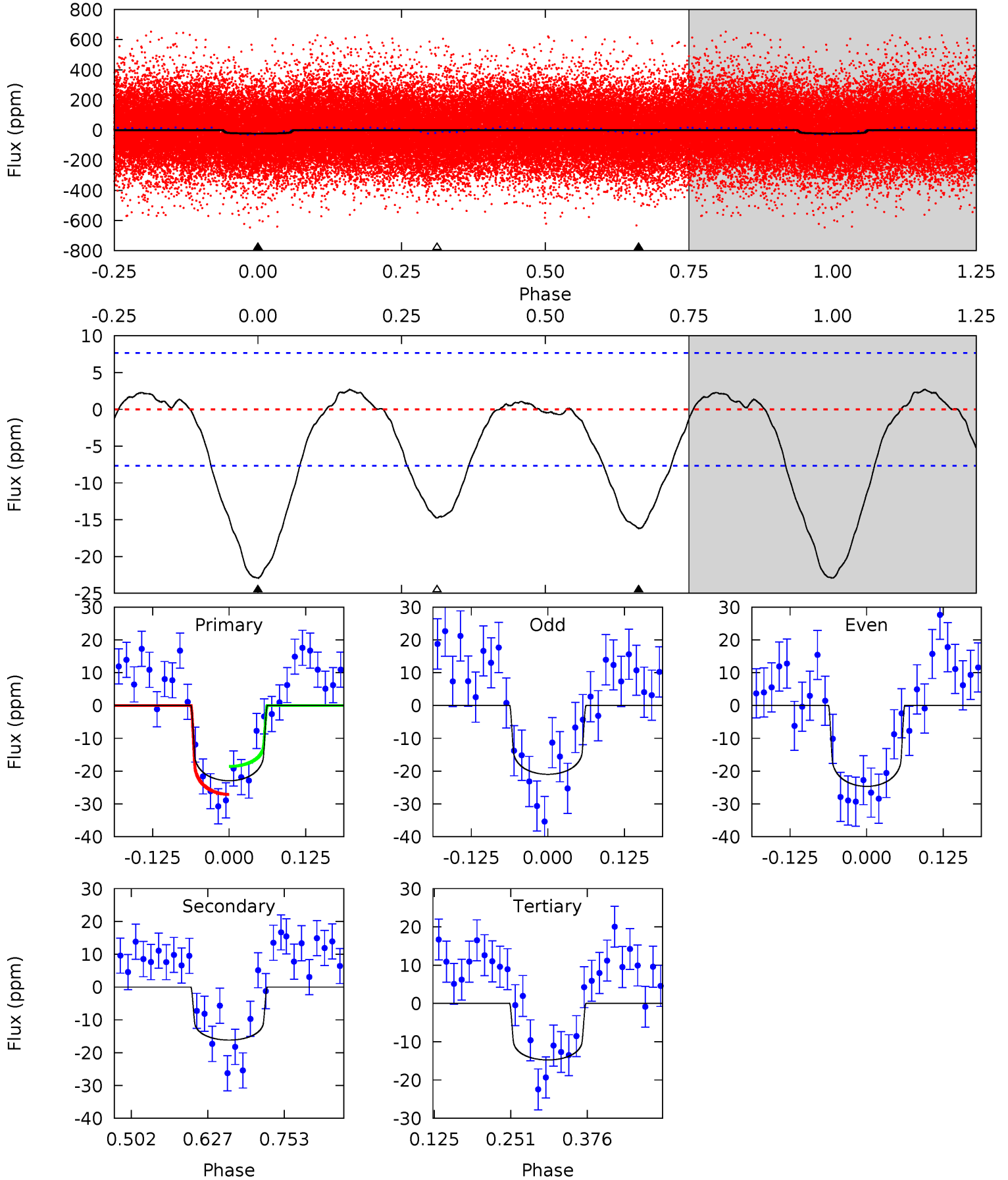
TCE 007287786-01 P= 3.993208 Days $T_0=133.145178$ (BKJD)



DV Model-Shift Uniqueness Test

007287786-01, P = 3.993158 Days, E = 129.175179 Days

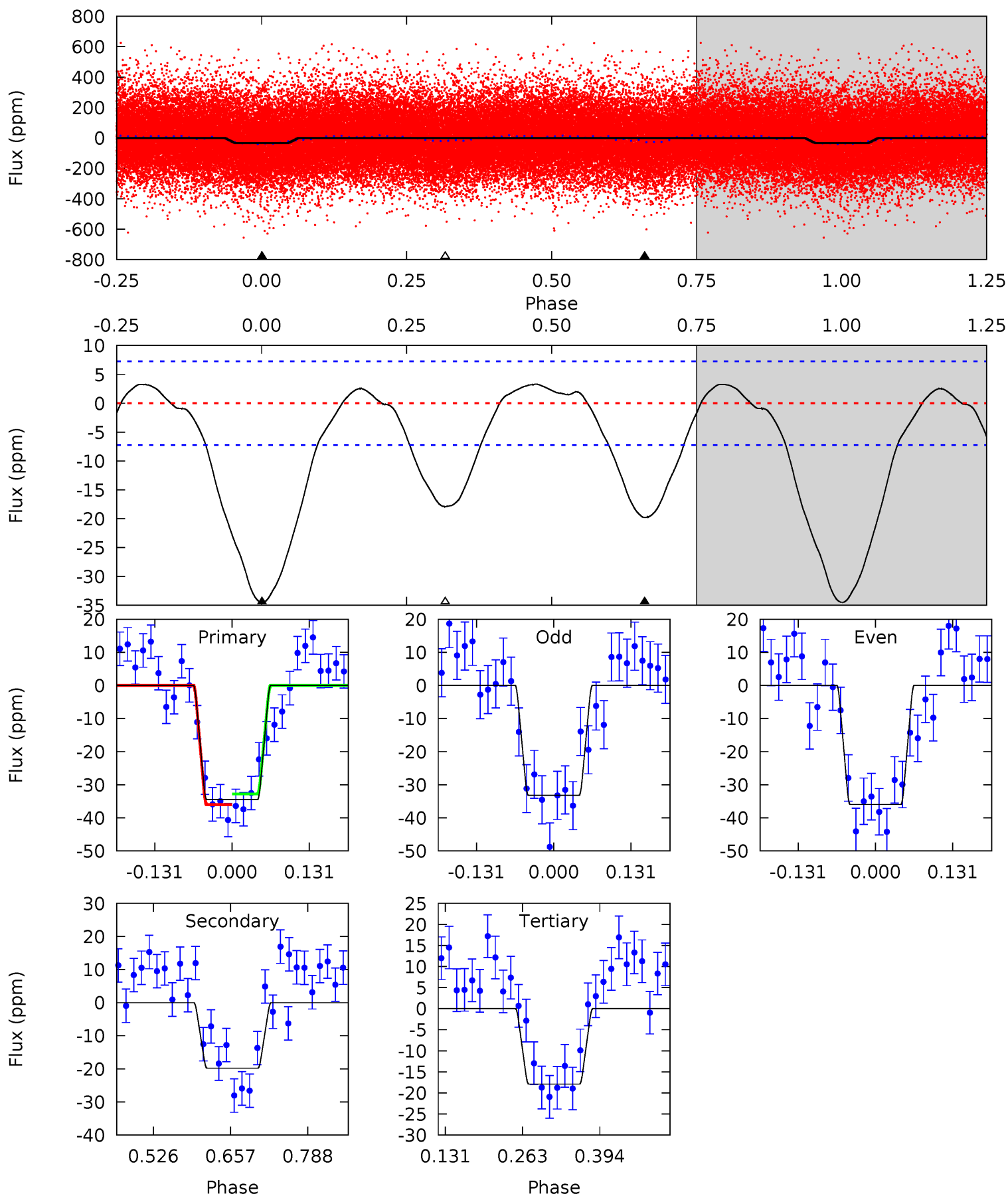
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.5	9.52	8.69	0	4.52	1.53	3.21	4.81	13.5	0.82	9.52	1.09	1.16	0.11	2.52



Alt Model-Shift Uniqueness Test

007287786-01, P = 3.993208 Days, E = 129.151970 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.5	12.3	11.1	0	4.51	1.51	4.34	10.3	21.5	1.18	12.3	0.86	1.05	0.09	0.99



Stellar Parameters For KIC 007287786

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7780^{+69}_{-100}	$3.841^{+0.196}_{-0.098}$	$0.210^{+0.150}_{-0.200}$	$2.899^{+0.473}_{-0.710}$	$2.124^{+0.157}_{-0.292}$	$0.123^{+0.130}_{-0.039}$
	+1%/-1%	+5%/-3%	+71%/-95%	+16%/-24%	+7%/-14%	+106%/-32%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007287786-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-16 ± 2	$1.54^{+0.37}_{-0.35}$	3220^{+143}_{-206}	6747^{+1069}_{-674}	15^{+9}_{-5}
Alt.	-20 ± 2	$1.83^{+0.38}_{-0.40}$	3206^{+153}_{-199}	6529^{+783}_{-531}	13^{+8}_{-4}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

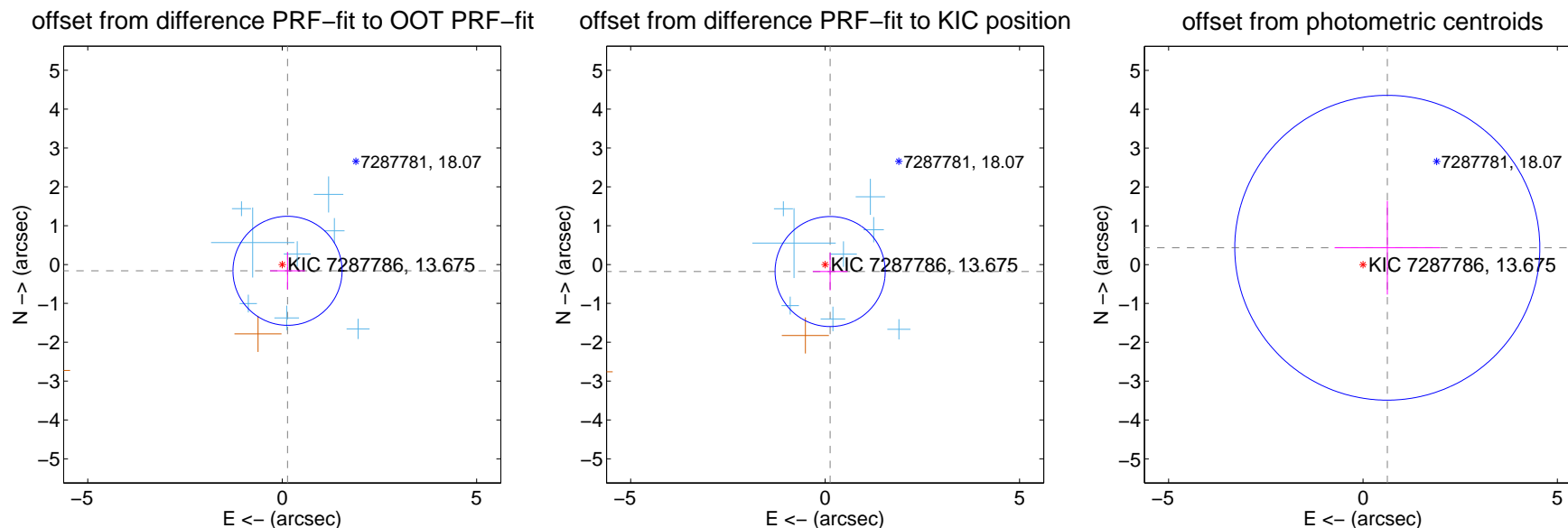
DV Centroid Data

Supplemental centroid analysis for 007287786-01. Kepler magnitude: 13.68. Transit SNR 10.32

There are 8 quarters with good PRF difference image offsets

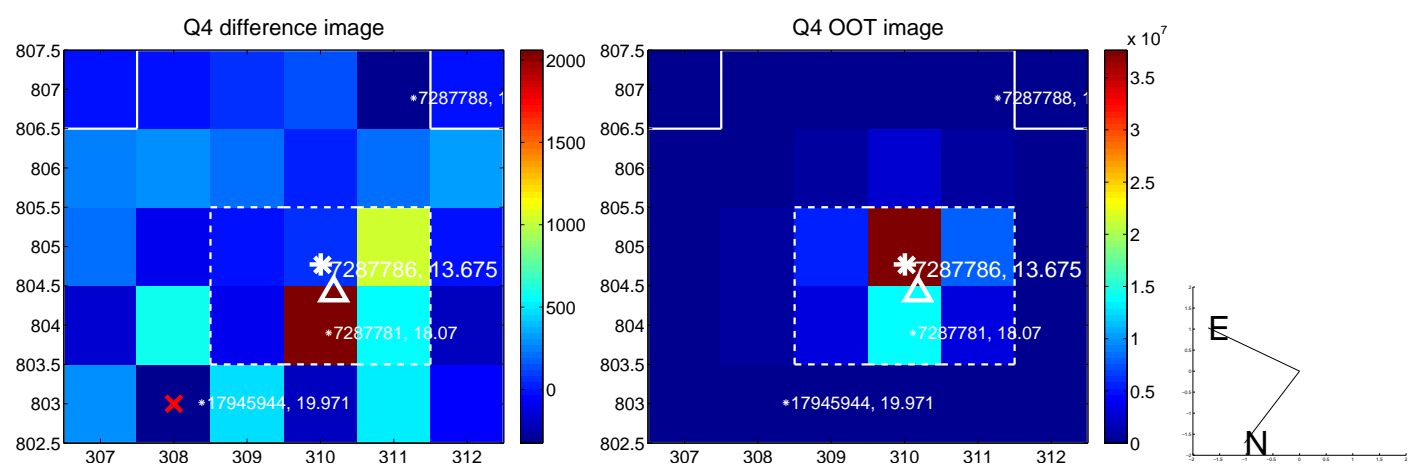
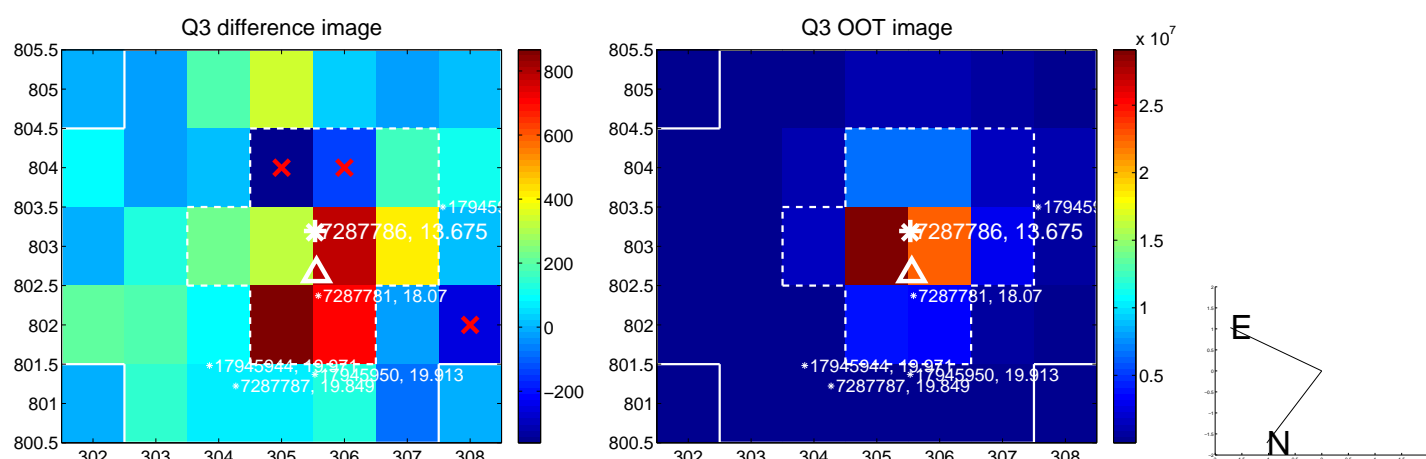
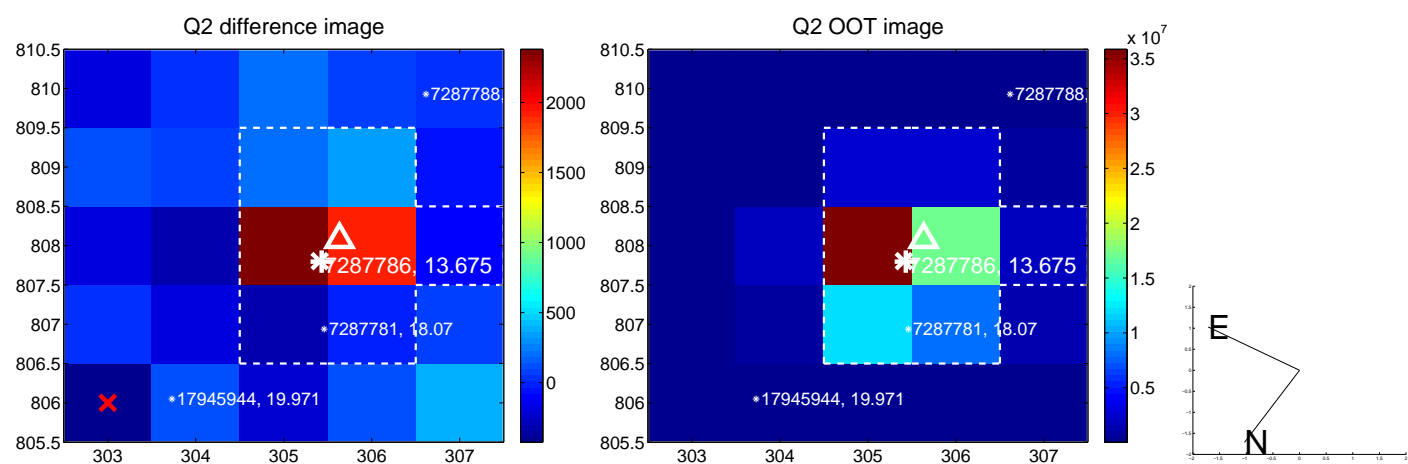
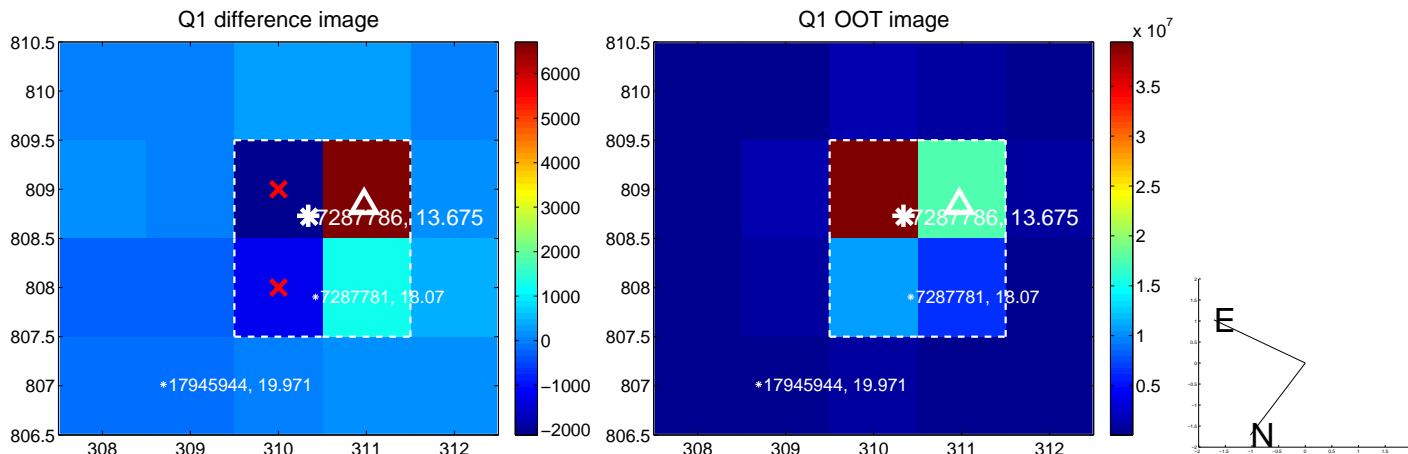
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.211 ± 0.468	0.45	-0.137 ± 0.449	-0.161 ± 0.480
PRF-fit source offset from KIC position	0.221 ± 0.472	0.47	-0.129 ± 0.446	-0.180 ± 0.485
photometric centroid source offset	0.76 ± 1.31	0.58	-0.63 ± 1.35	0.43 ± 1.20

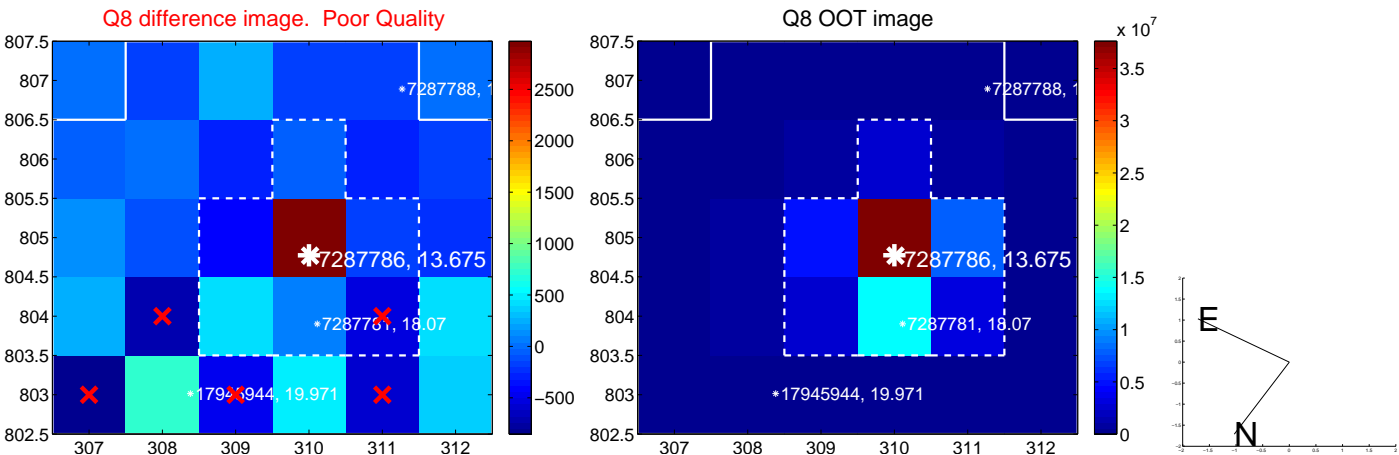
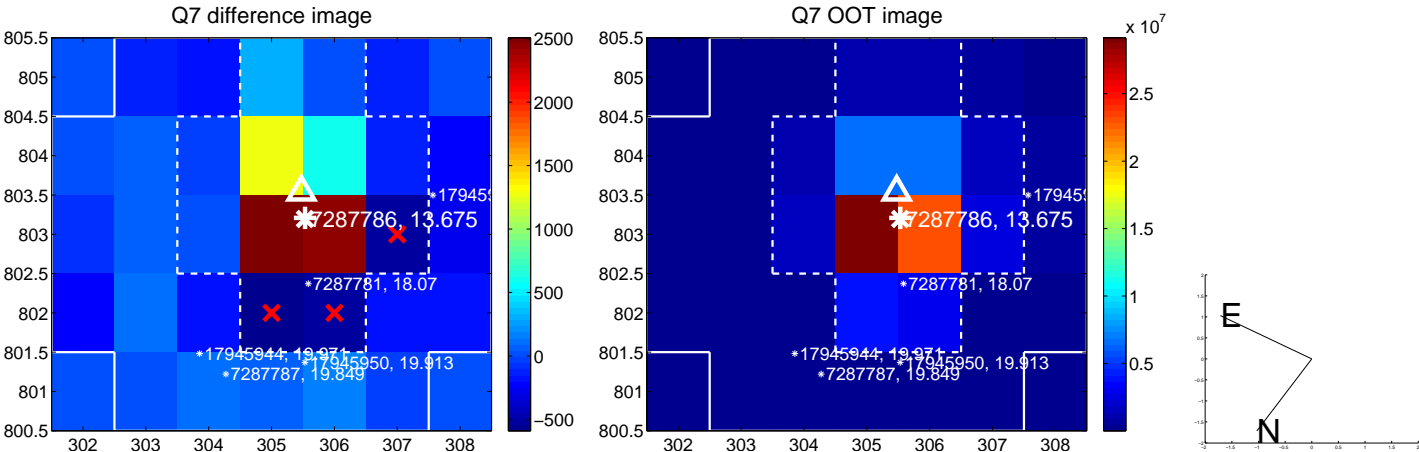
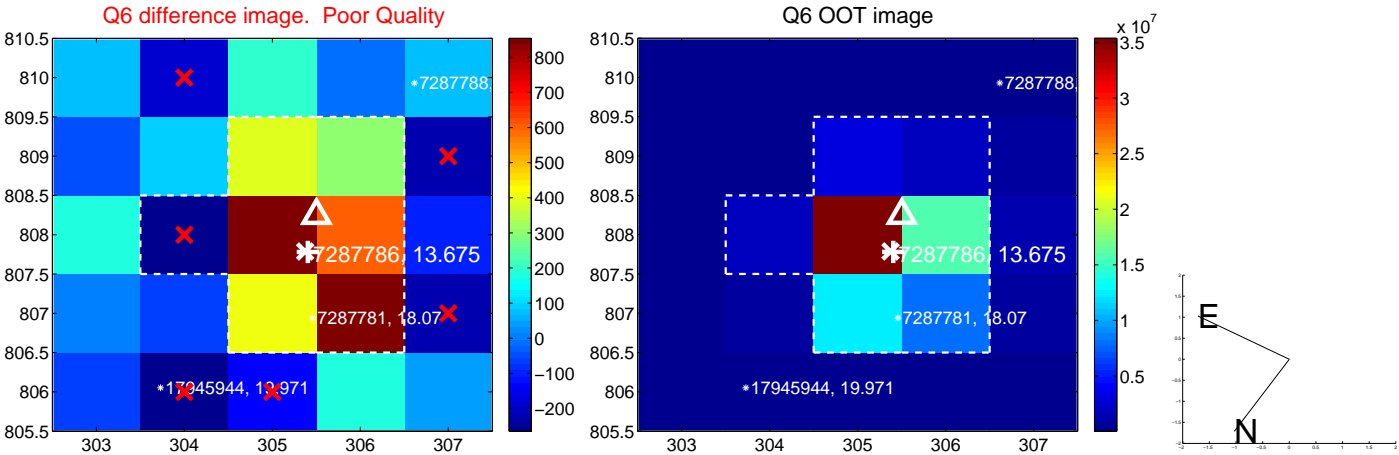
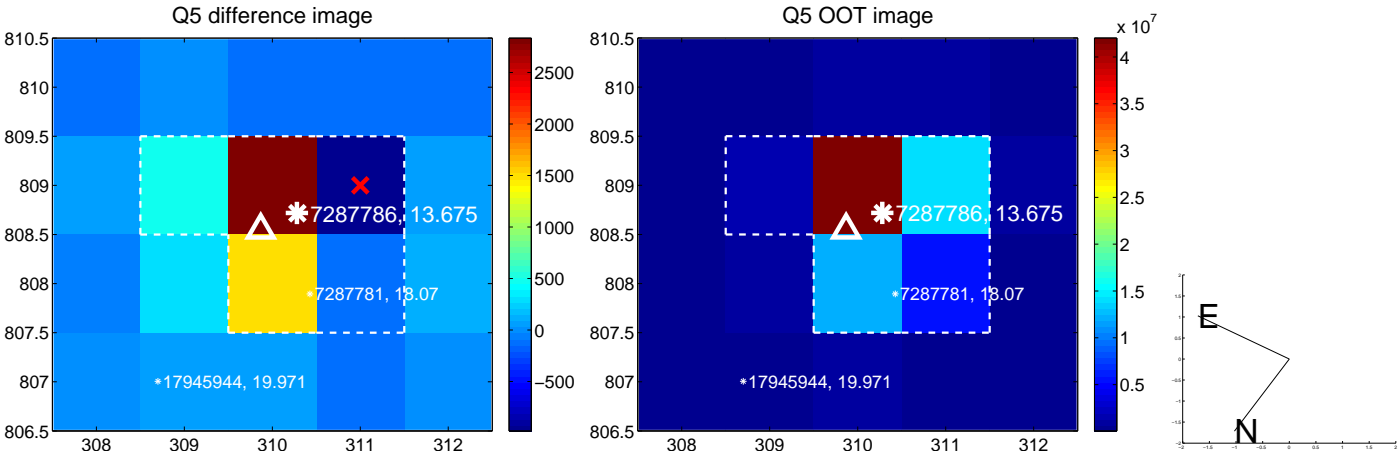


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

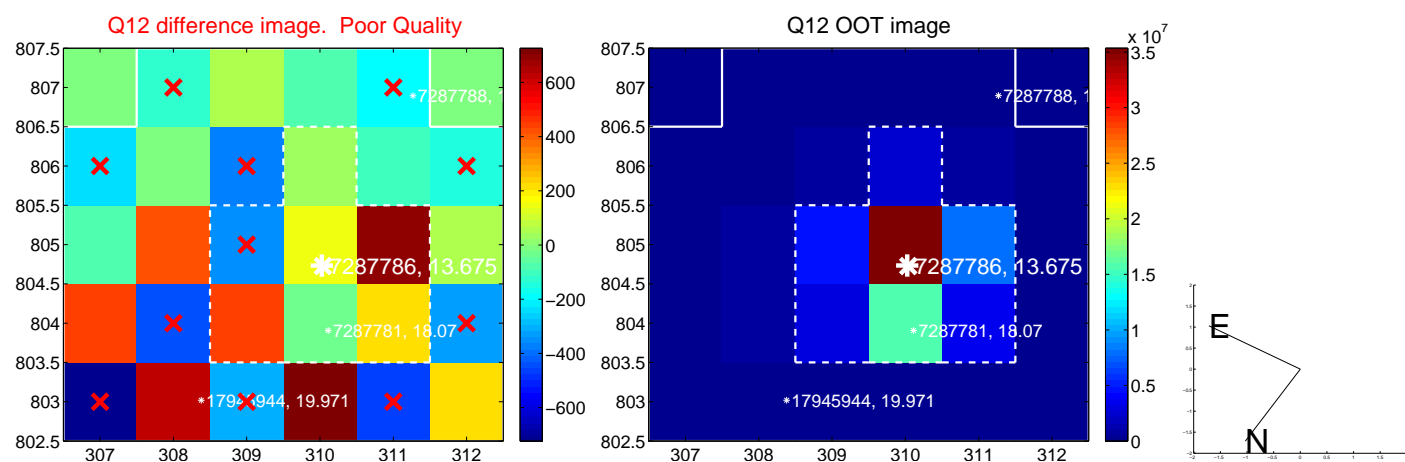
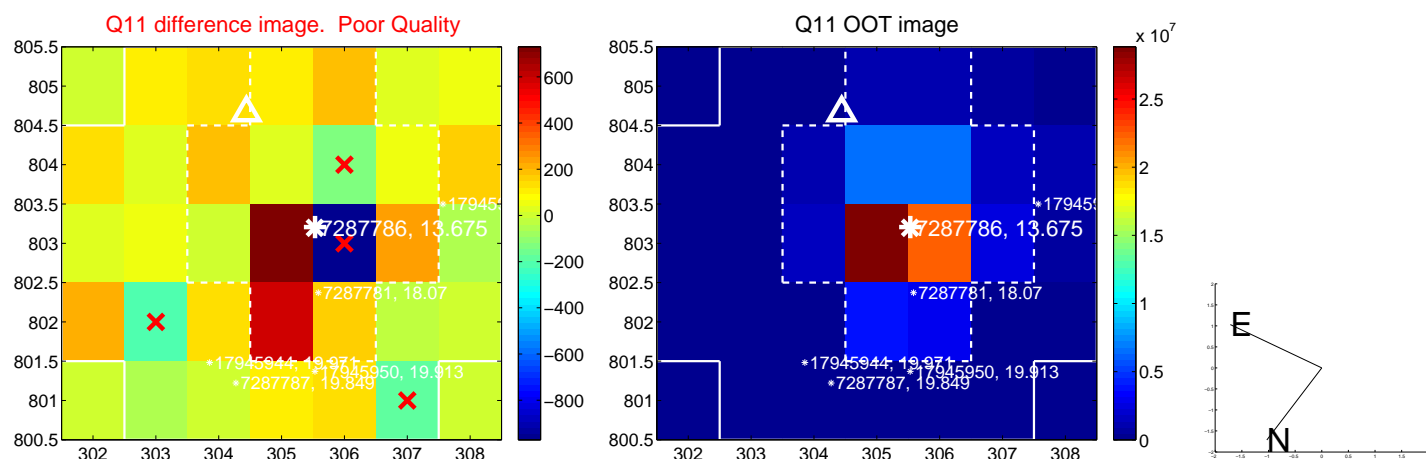
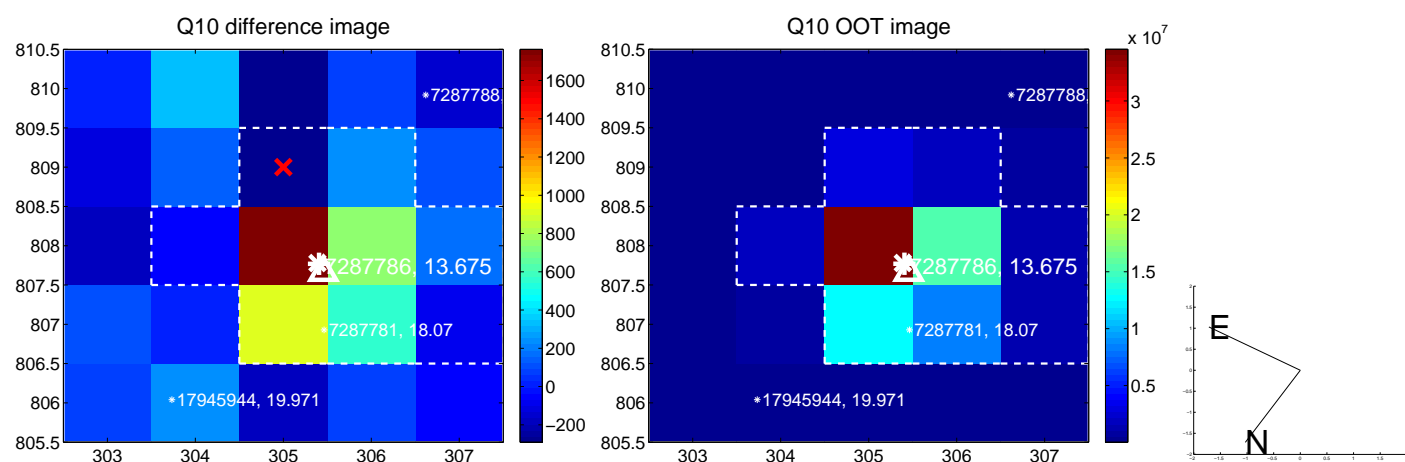
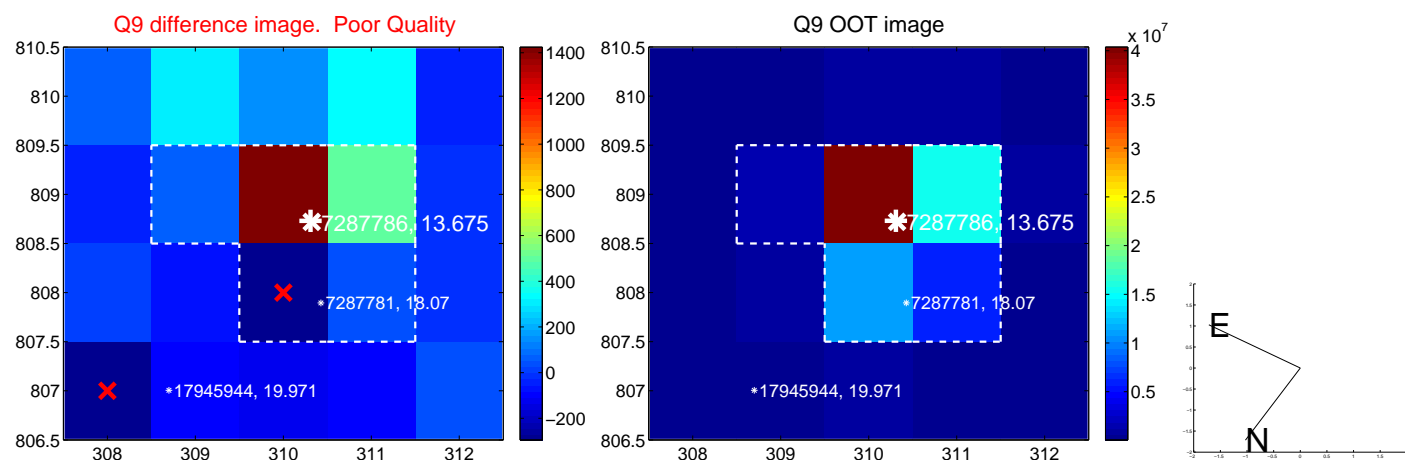
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



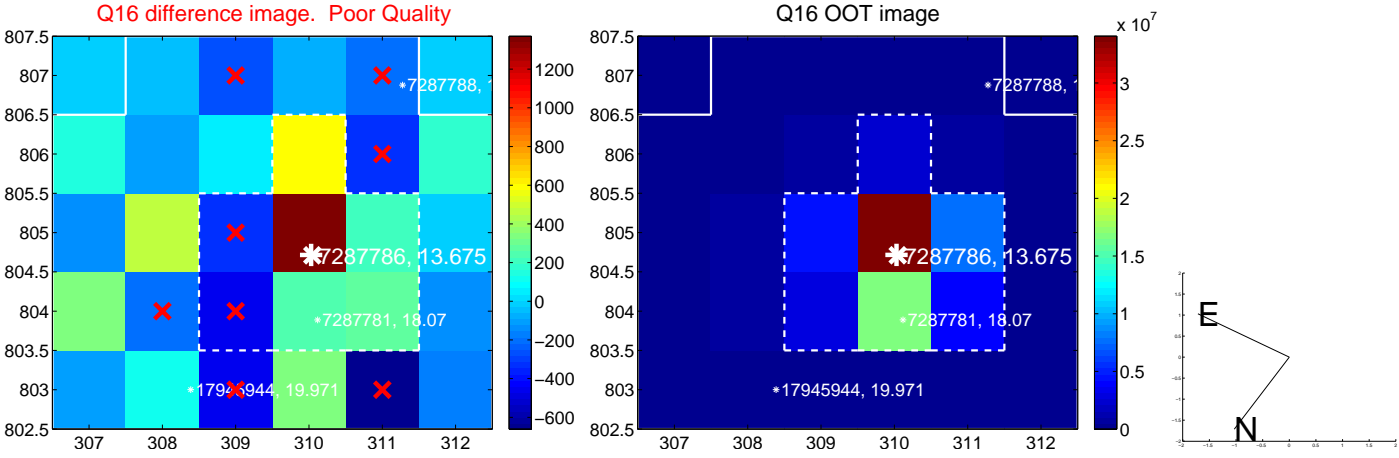
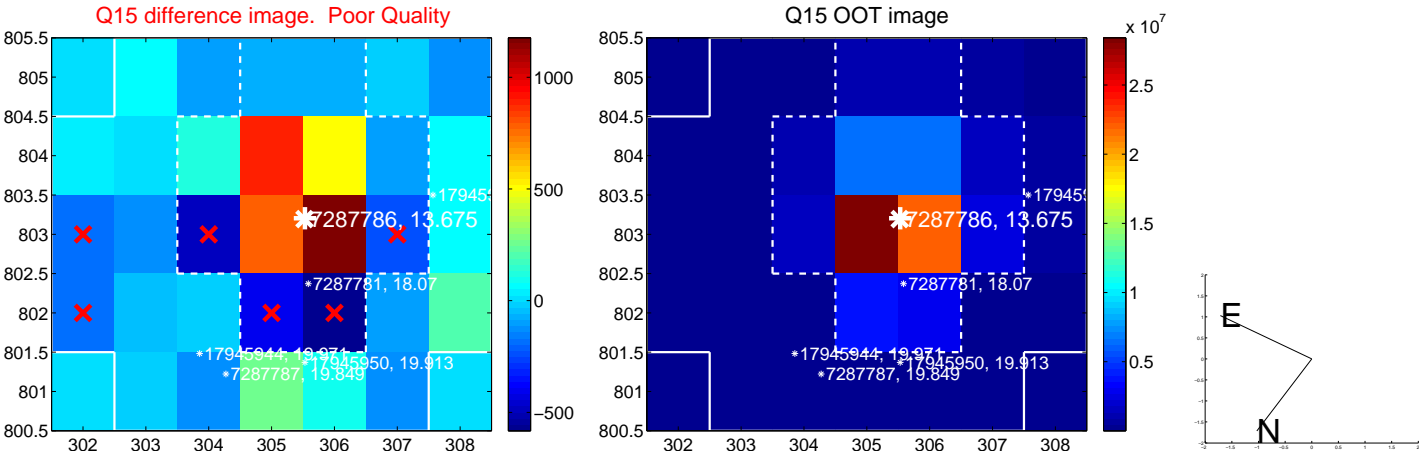
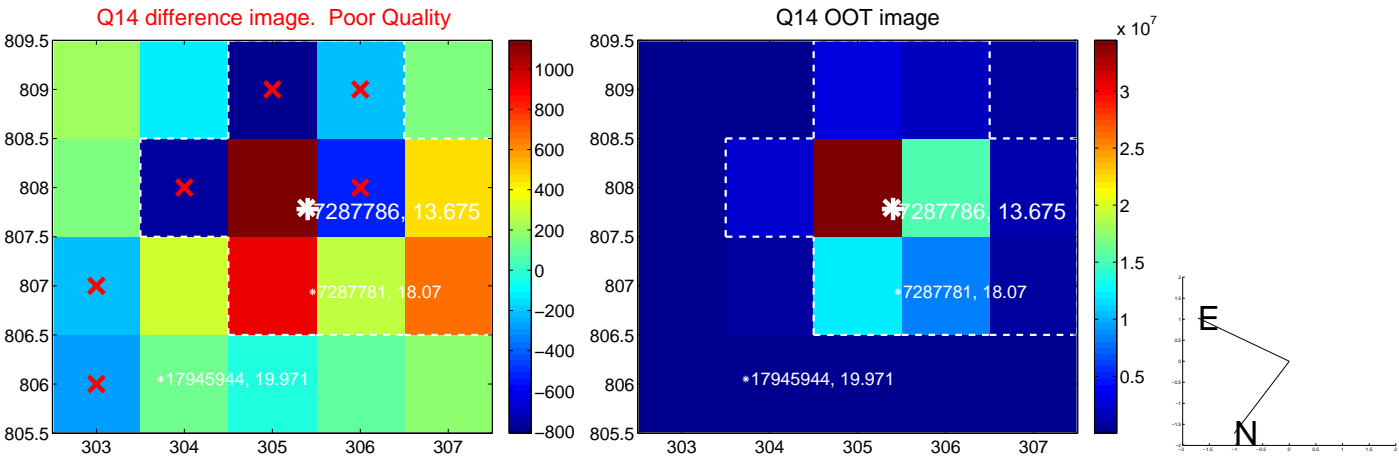
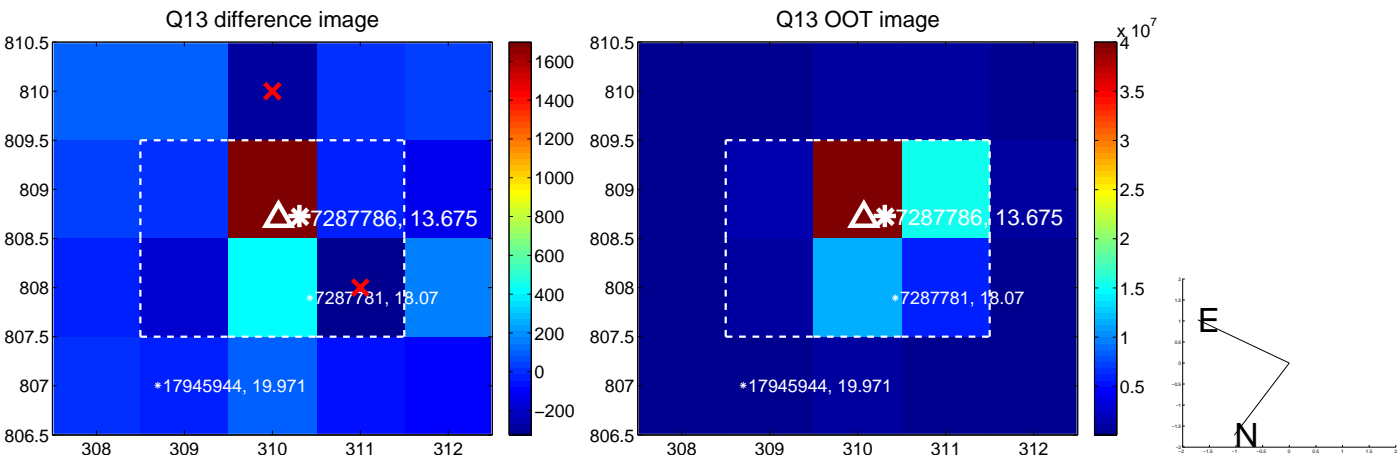
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



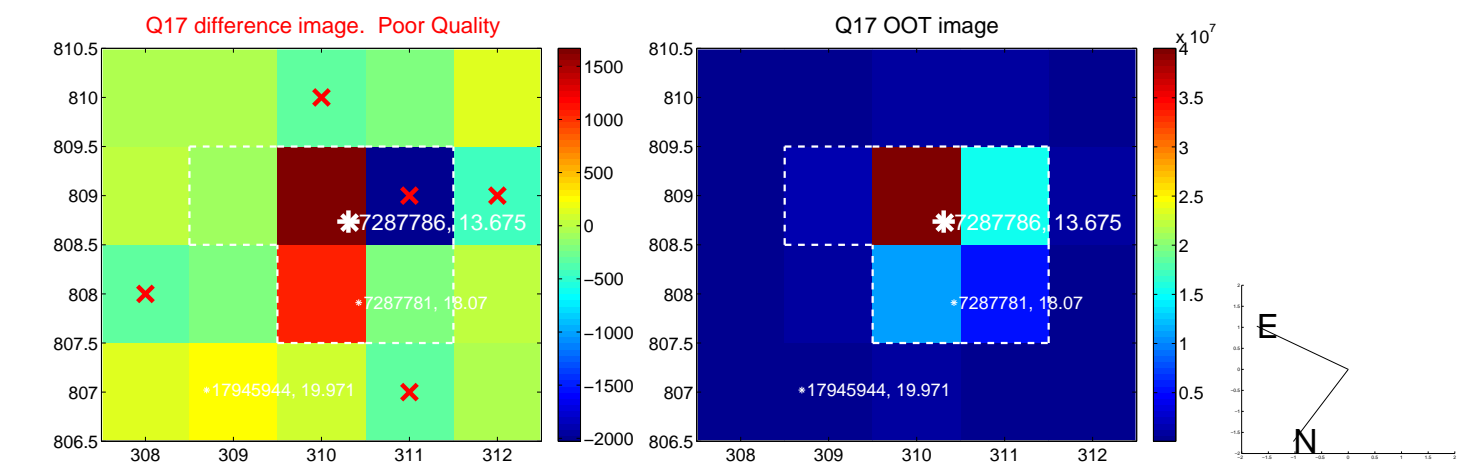
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



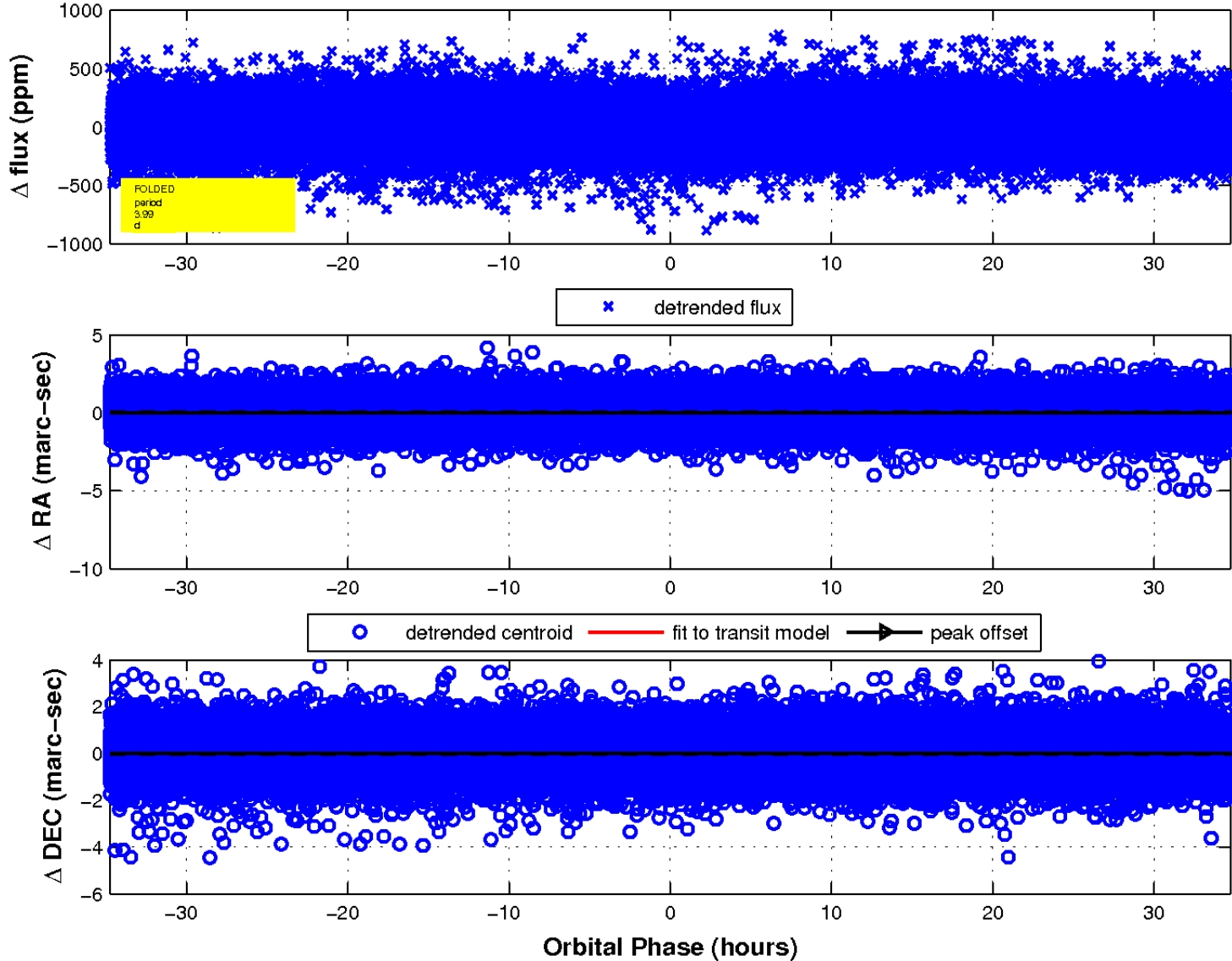
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

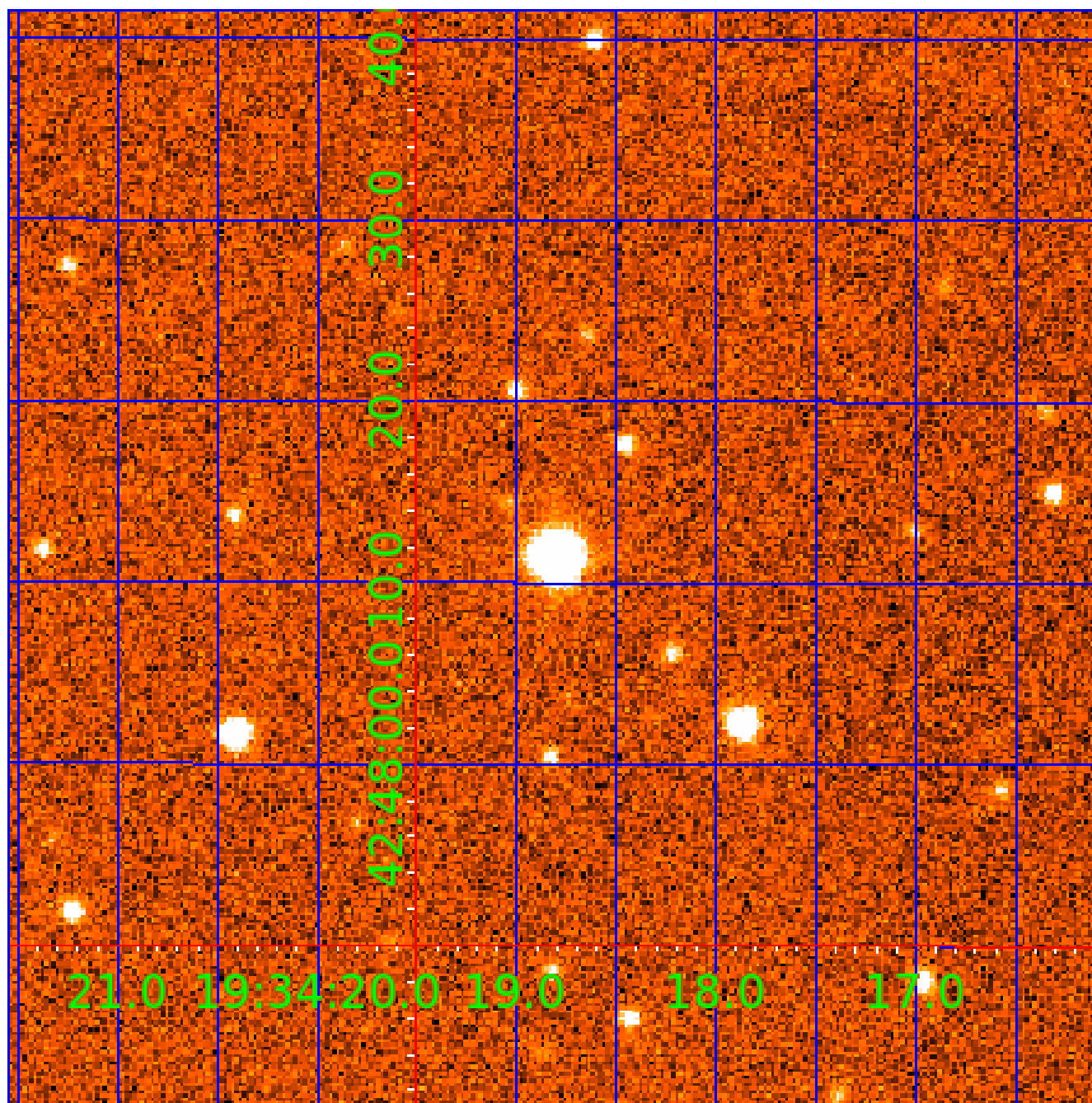


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 007287786

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007287786-01	OBS	No	3.993158	133.168337	23.4	11.586	10.3	10.3	2.90	7780	1.60	6874.21
007287786-02	OBS	No	365.087278	187.118633	250.6	17.969	7.9	7.7	2.90	7780	4.81	16.69
007287786-03	OBS	No	3.992842	131.856231	18.7	10.288	8.0	8.1	2.90	7780	1.50	6874.94

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007287786-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
007287786-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007287786-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

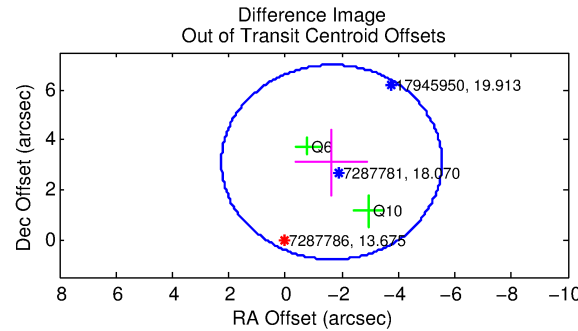
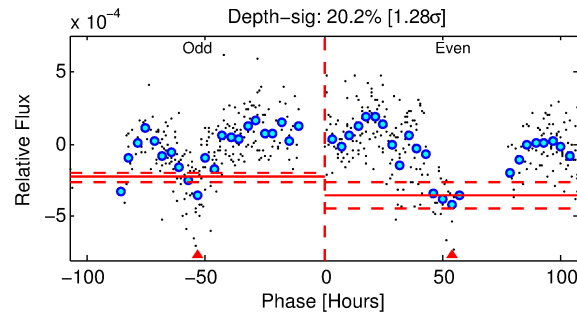
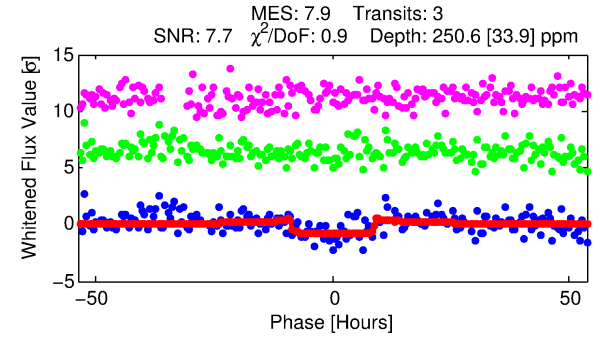
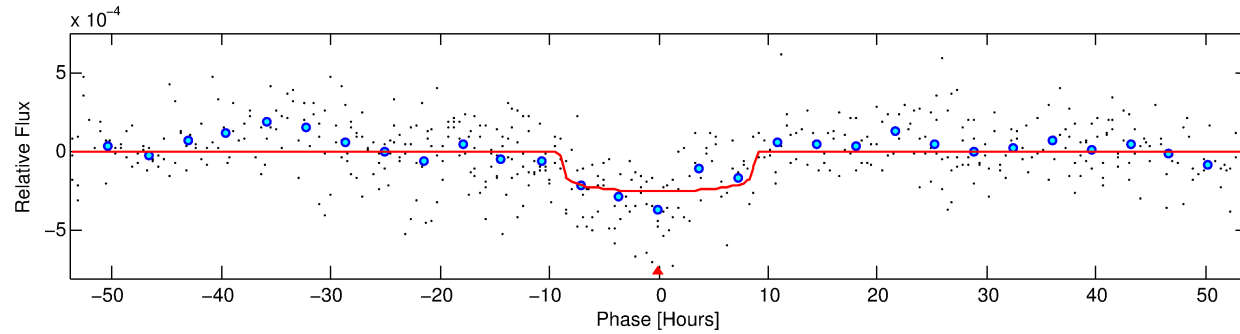
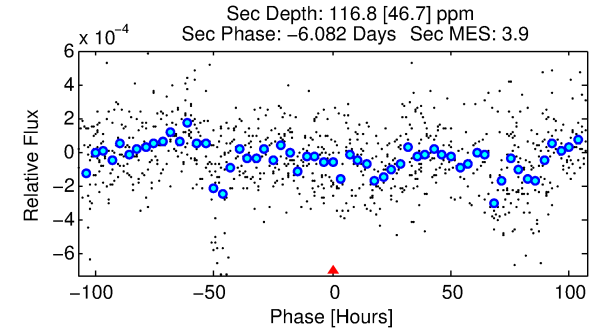
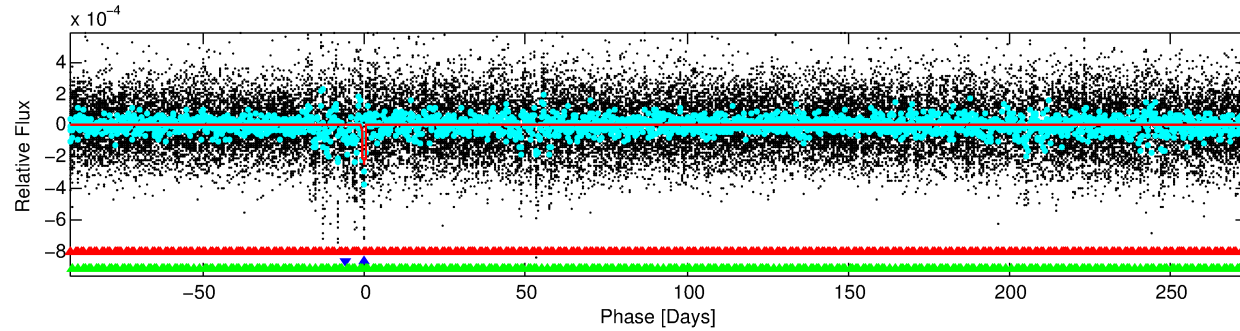
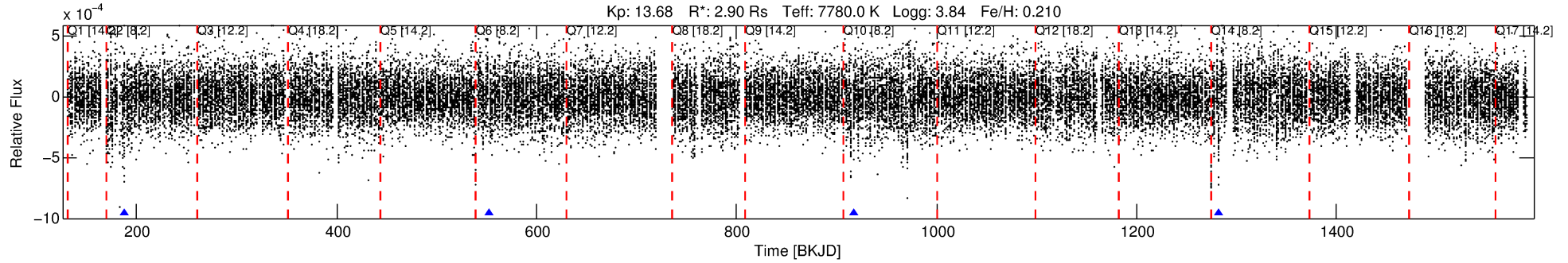
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007287786-02

No Significant Match Found

DV One-Page Summary

KIC: 7287786 Candidate: 2 of 3 Period: 365.087 d



DV Fit Results:

Period = 365.08728 [0.01001] d
Epoch = 187.1186 [0.0175] BKJD
Rp/R* = 0.0152 [0.0053]
a/R* = 128.16 [250.15]
b = 0.59 [2.16]
Seff = 16.69 [5.78]
Teq = 515 [45] K
Rp = 4.81 [2.04] Re
a = 1.2857 [0.2854] AU
Ag = 4585.67 [3986.20] [1.15 σ]
Teffp = 6557 [1313] K [4.60 σ]

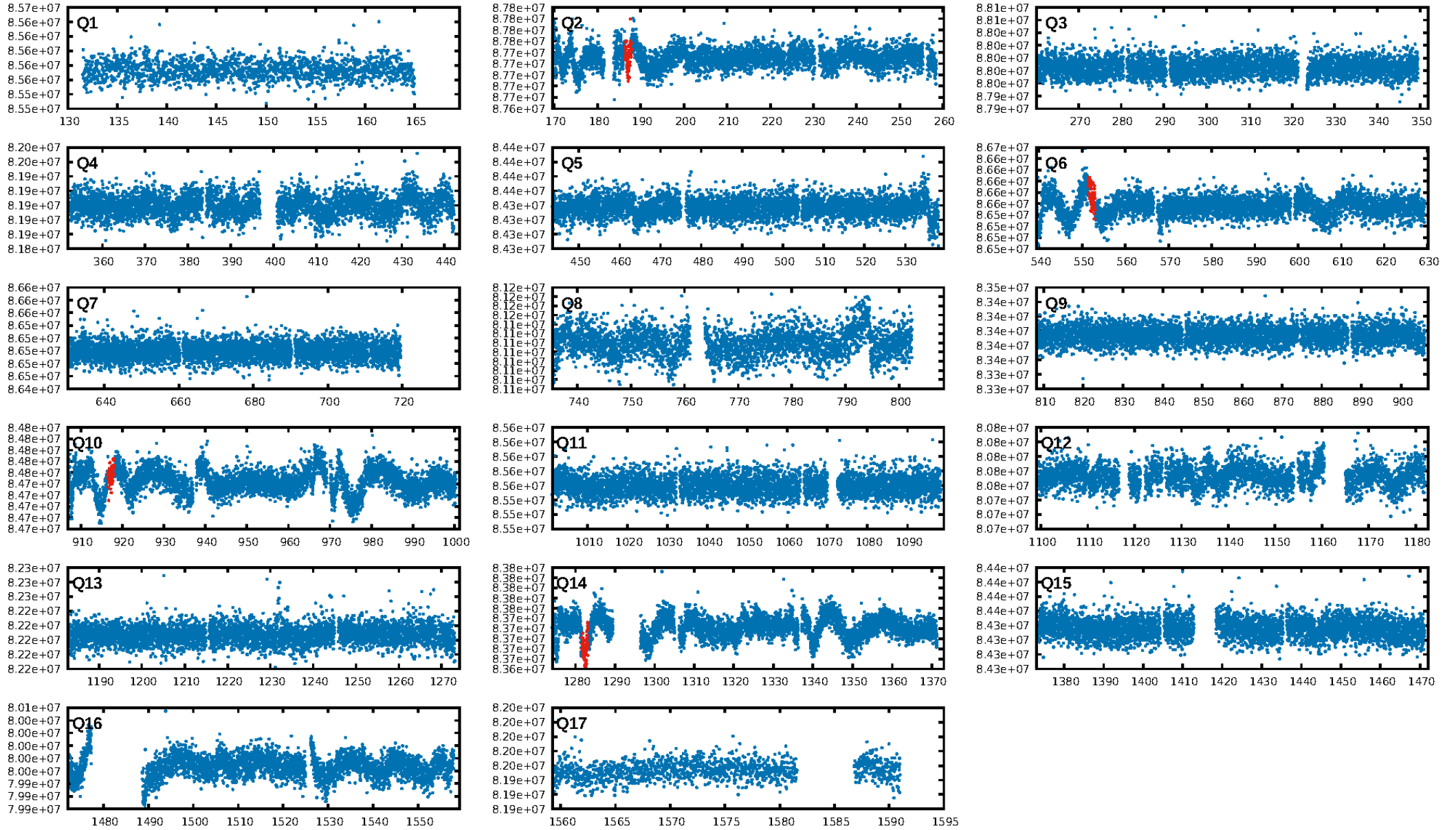
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [405.34 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 6.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.18e-12
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 0.8482
Centroid-sig: 78.7%
Centroid-so: 0.369 arcsec [0.35 σ]
OotOffset-rm: 3.505 arcsec [2.70 σ]
KicOffset-rm: 3.495 arcsec [2.73 σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 0.00 [0/3]

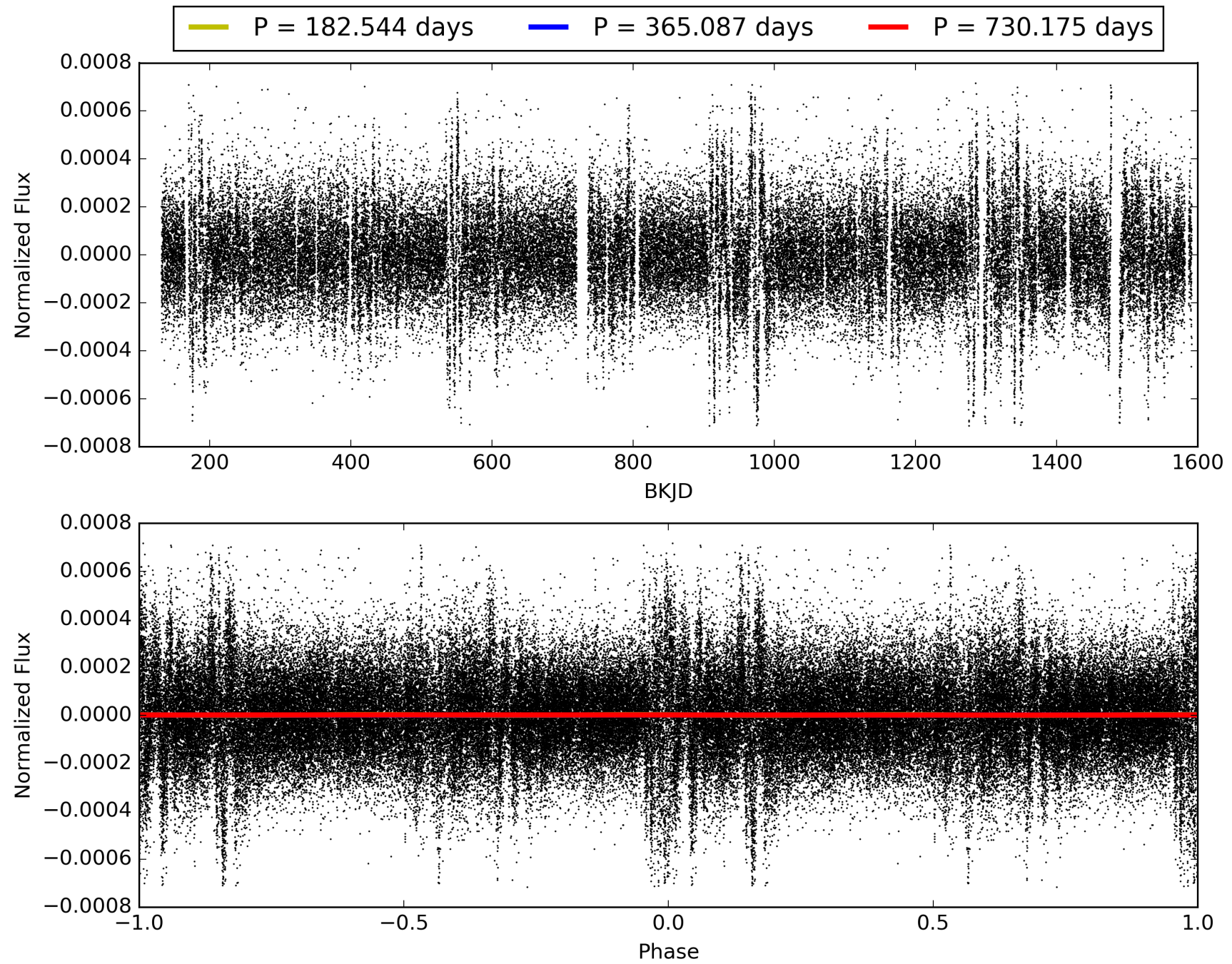
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:24:24 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007287786-02, PDC Light Curves

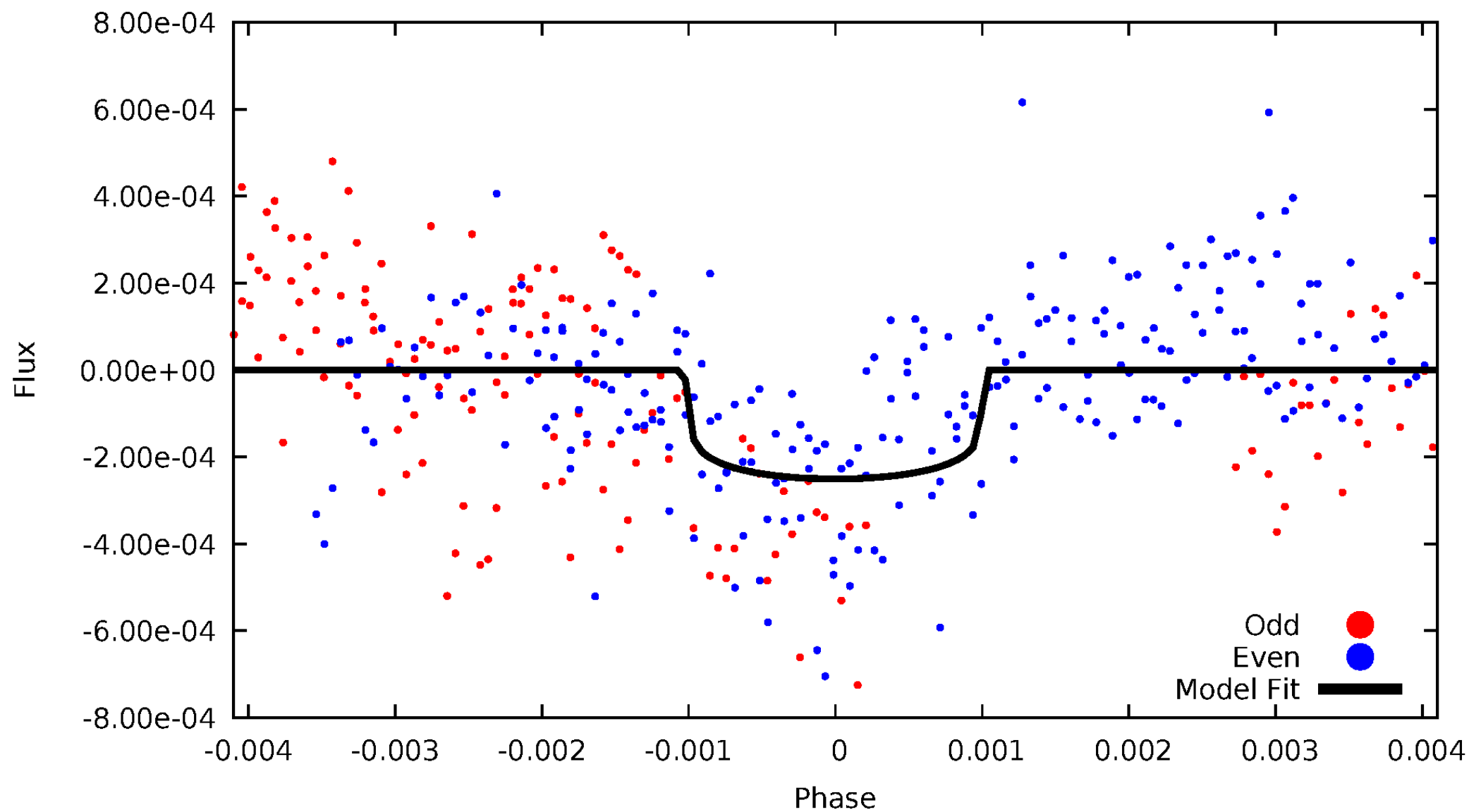


TCE 007287786-02



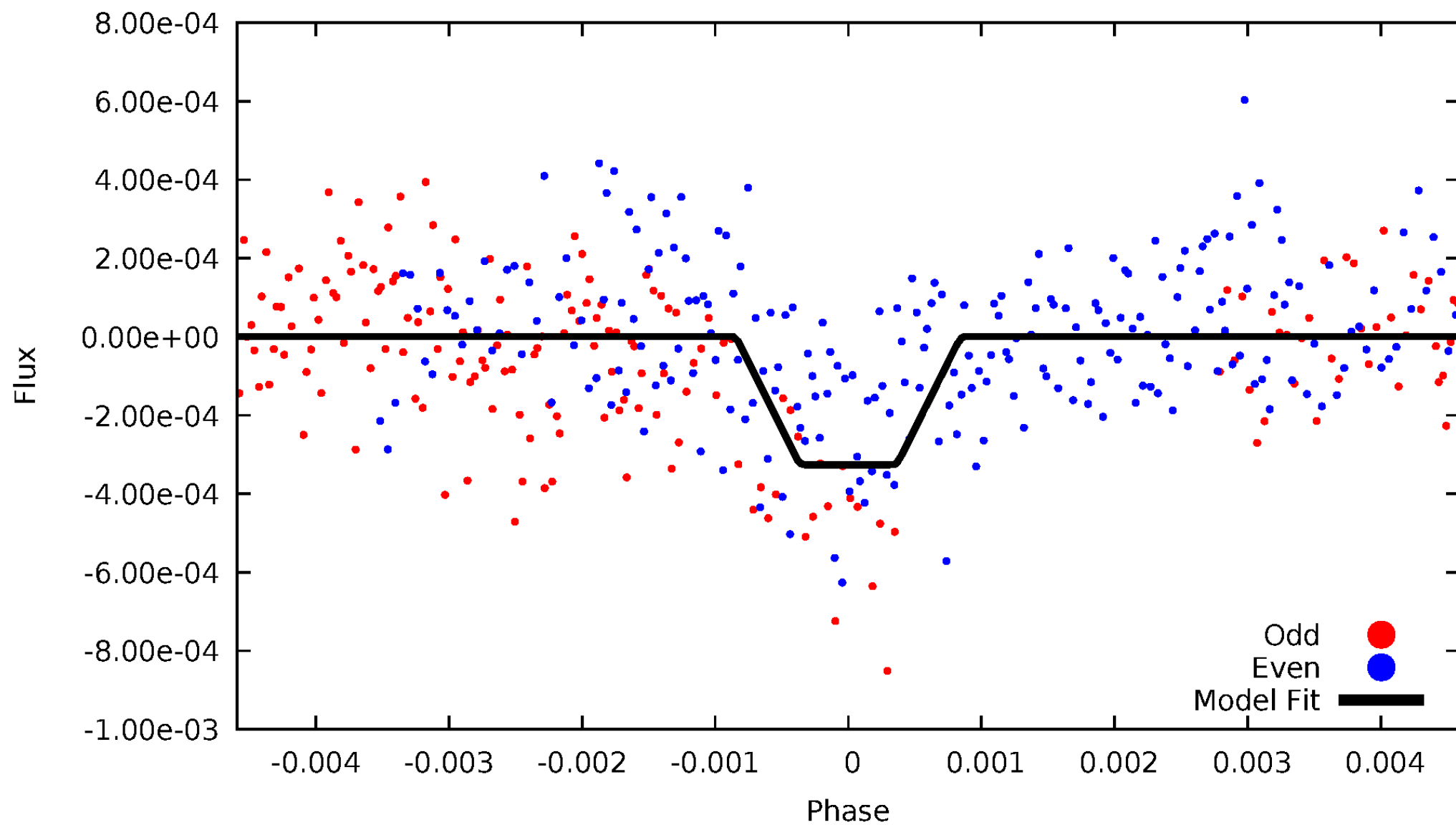
DV Odd/Even

TCE 007287786-02



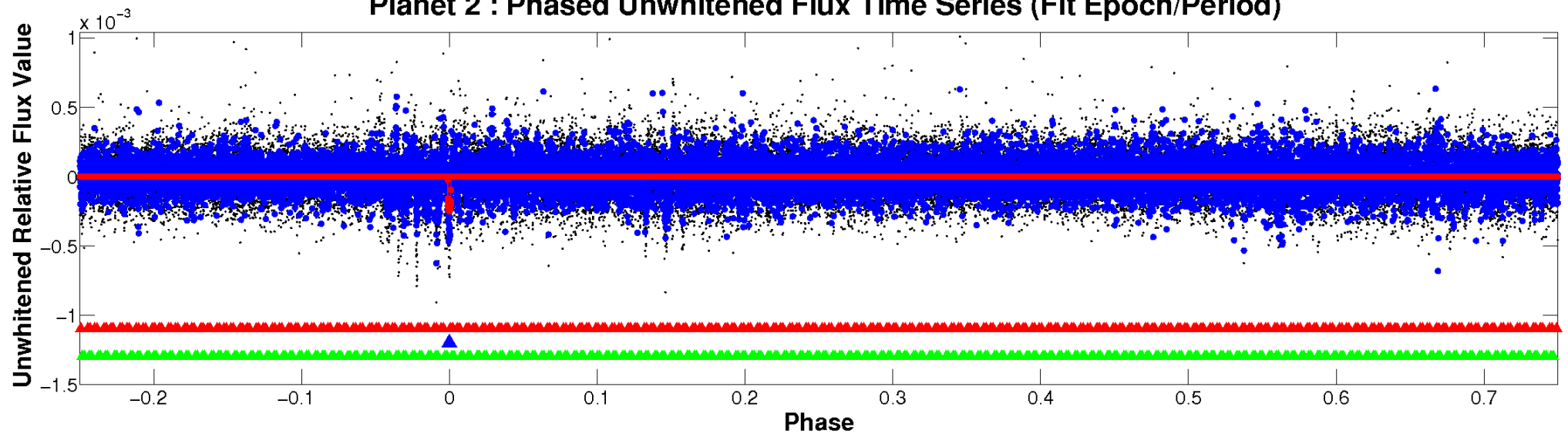
ALT Odd/Even

TCE 007287786-02

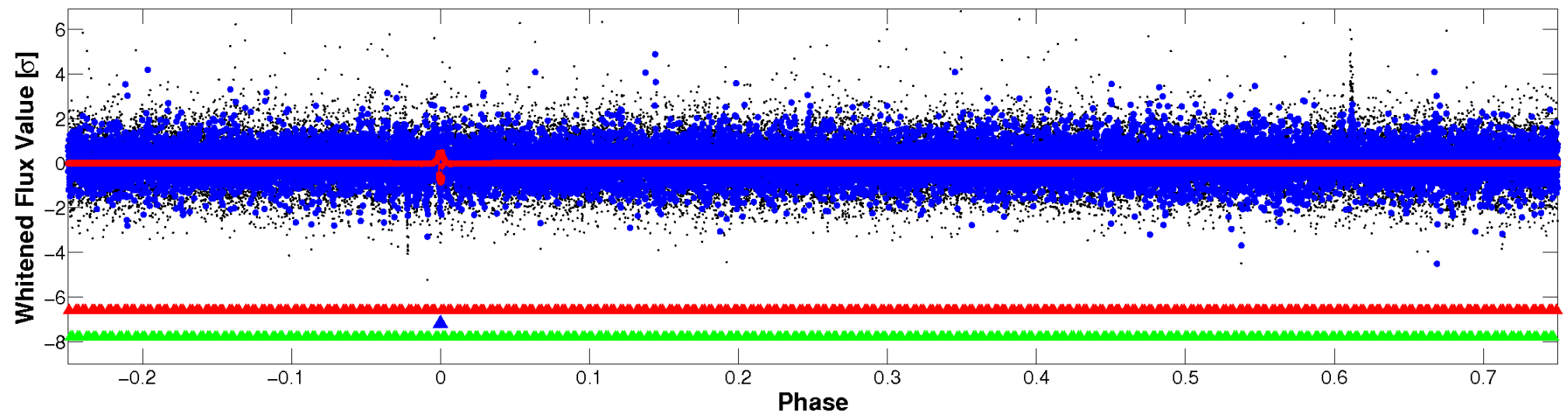


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

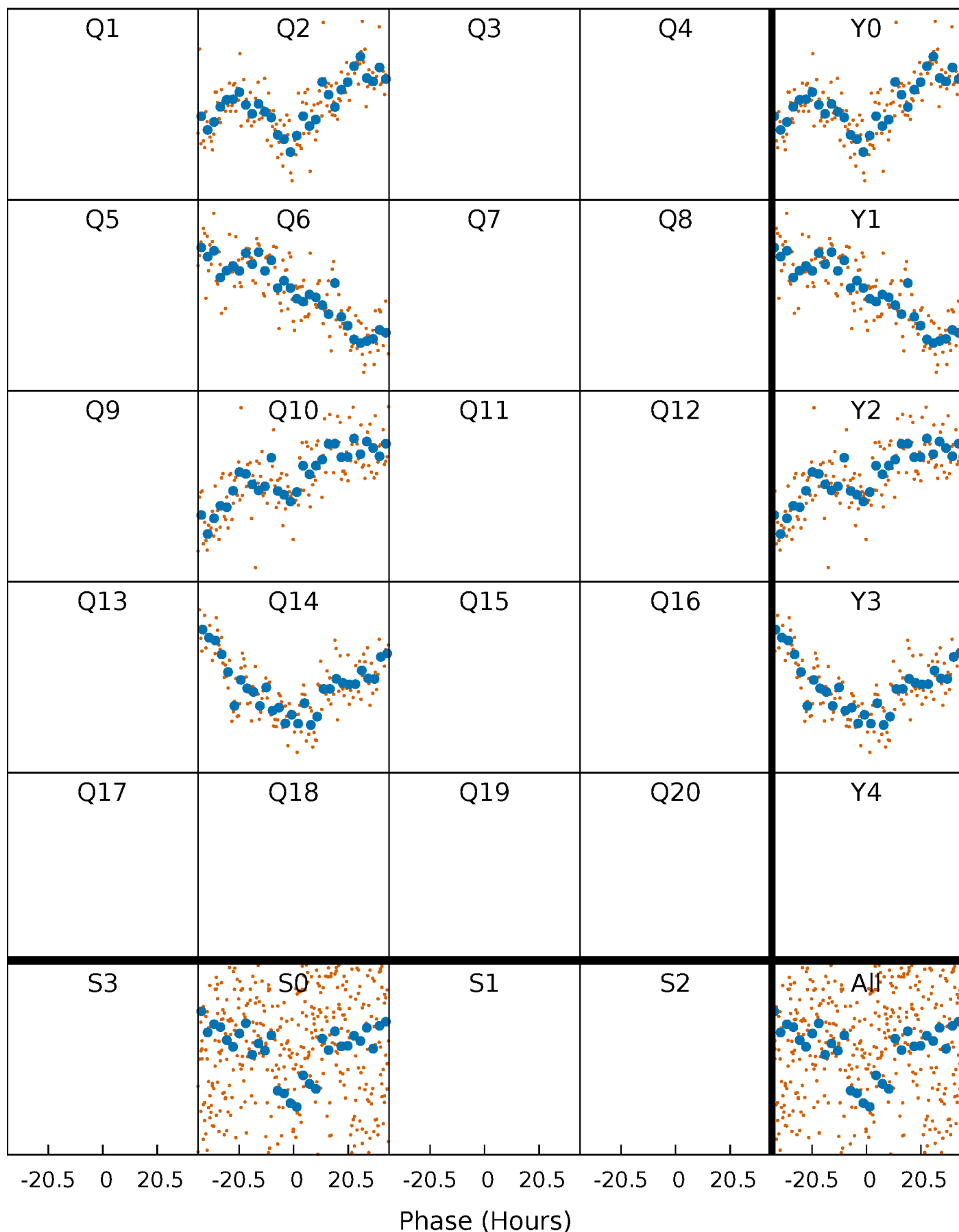


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



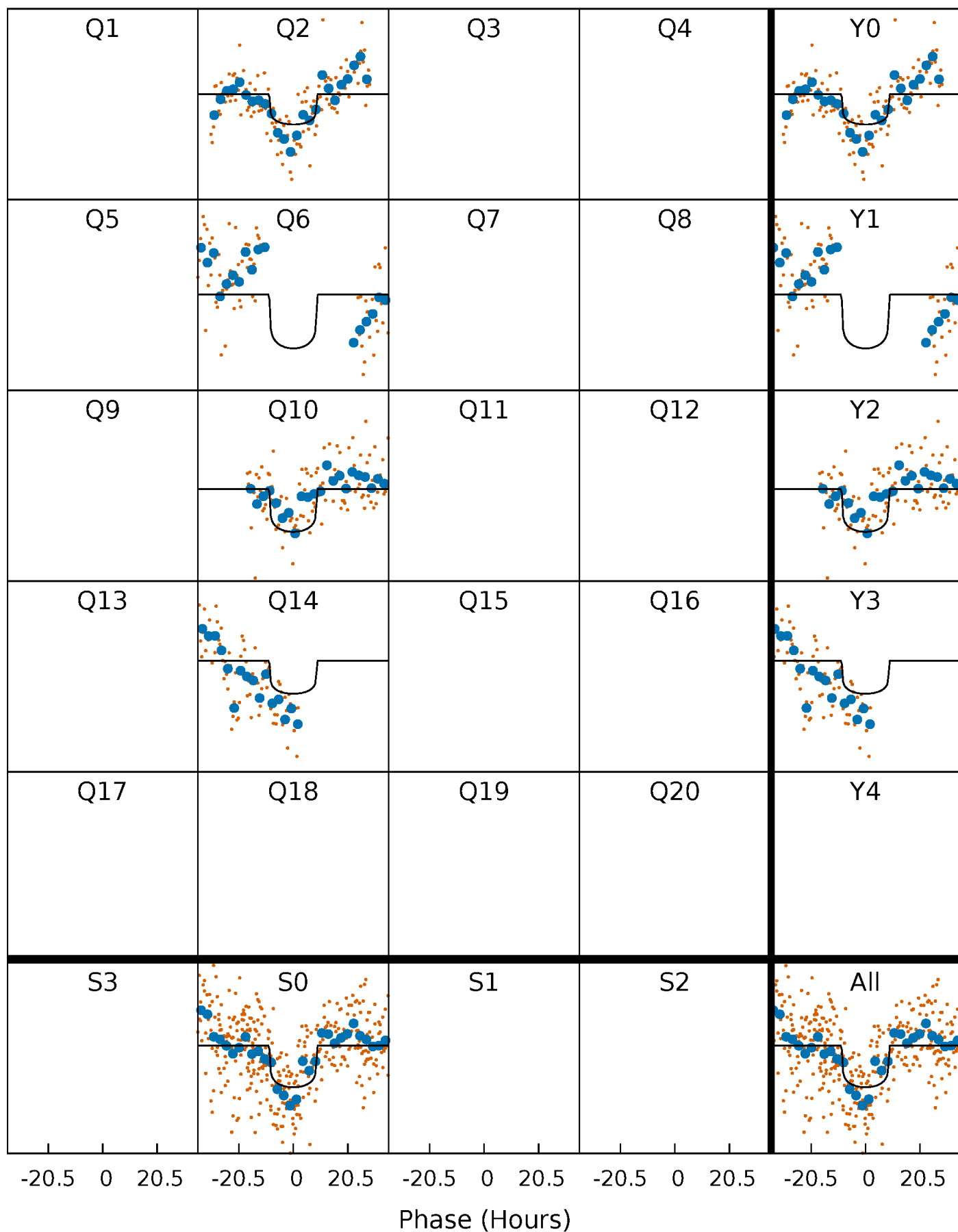
PDC Quarter-Phased Transit Curves

TCE 007287786-02 P=365.087278 Days $T_0=187.118633$ (BKJD)



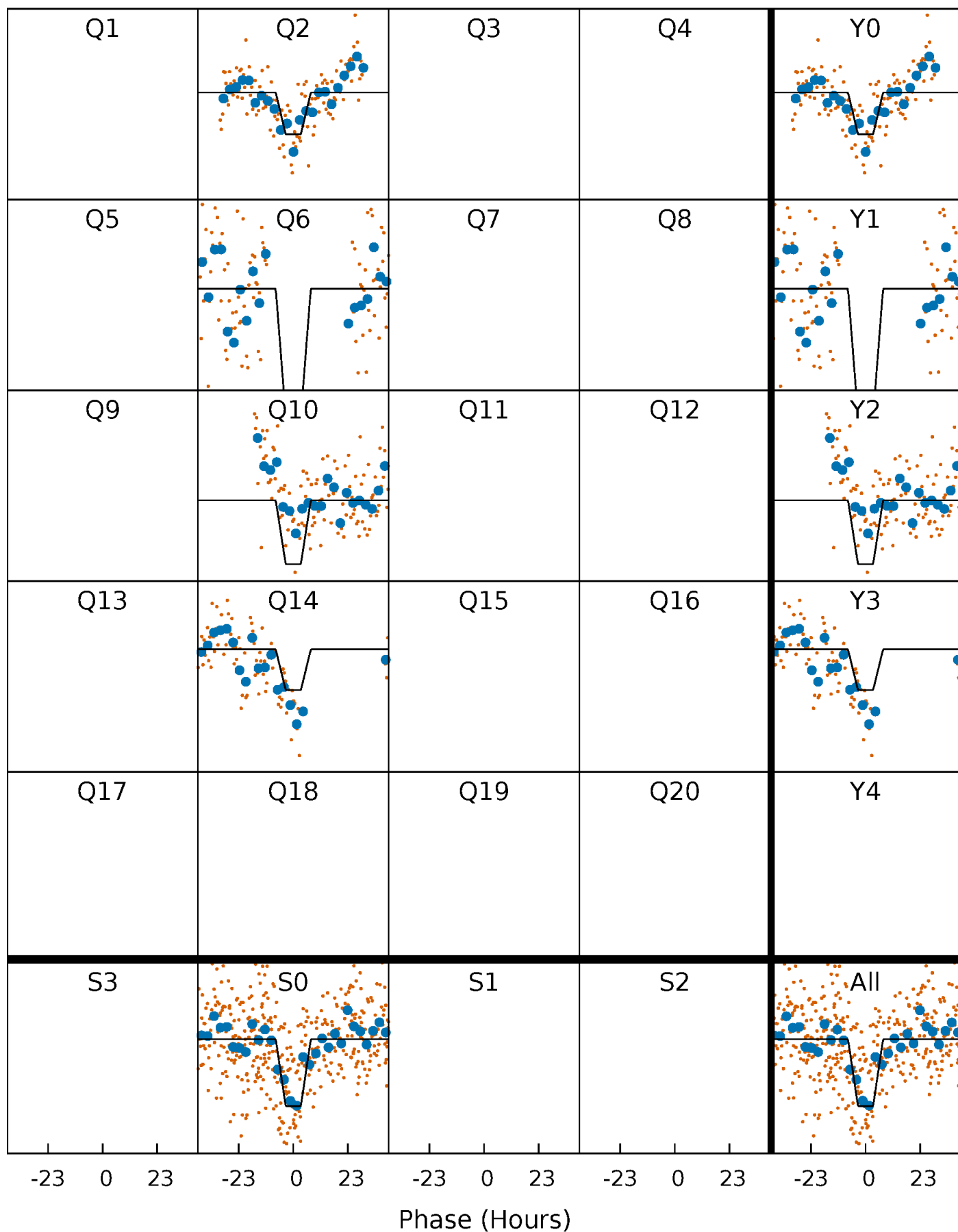
DV Quarter-Phased Transit Curves

TCE 007287786-02 P=365.087278 Days $T_0=187.118633$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

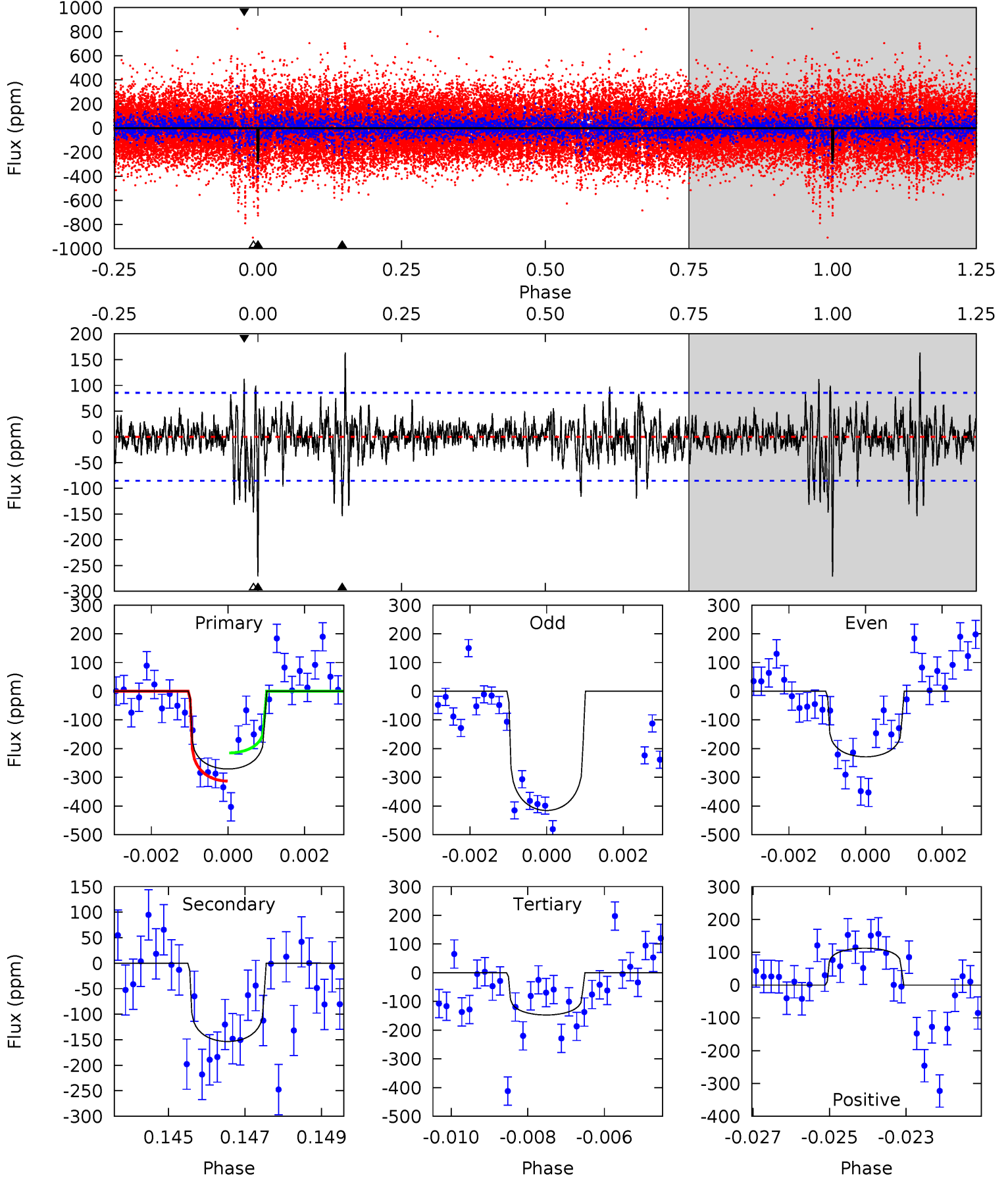
TCE 007287786-02 P=365.072794 Days $T_0=187.110383$ (BKJD)



DV Model-Shift Uniqueness Test

007287786-02, P = 365.087278 Days, E = 187.118633 Days

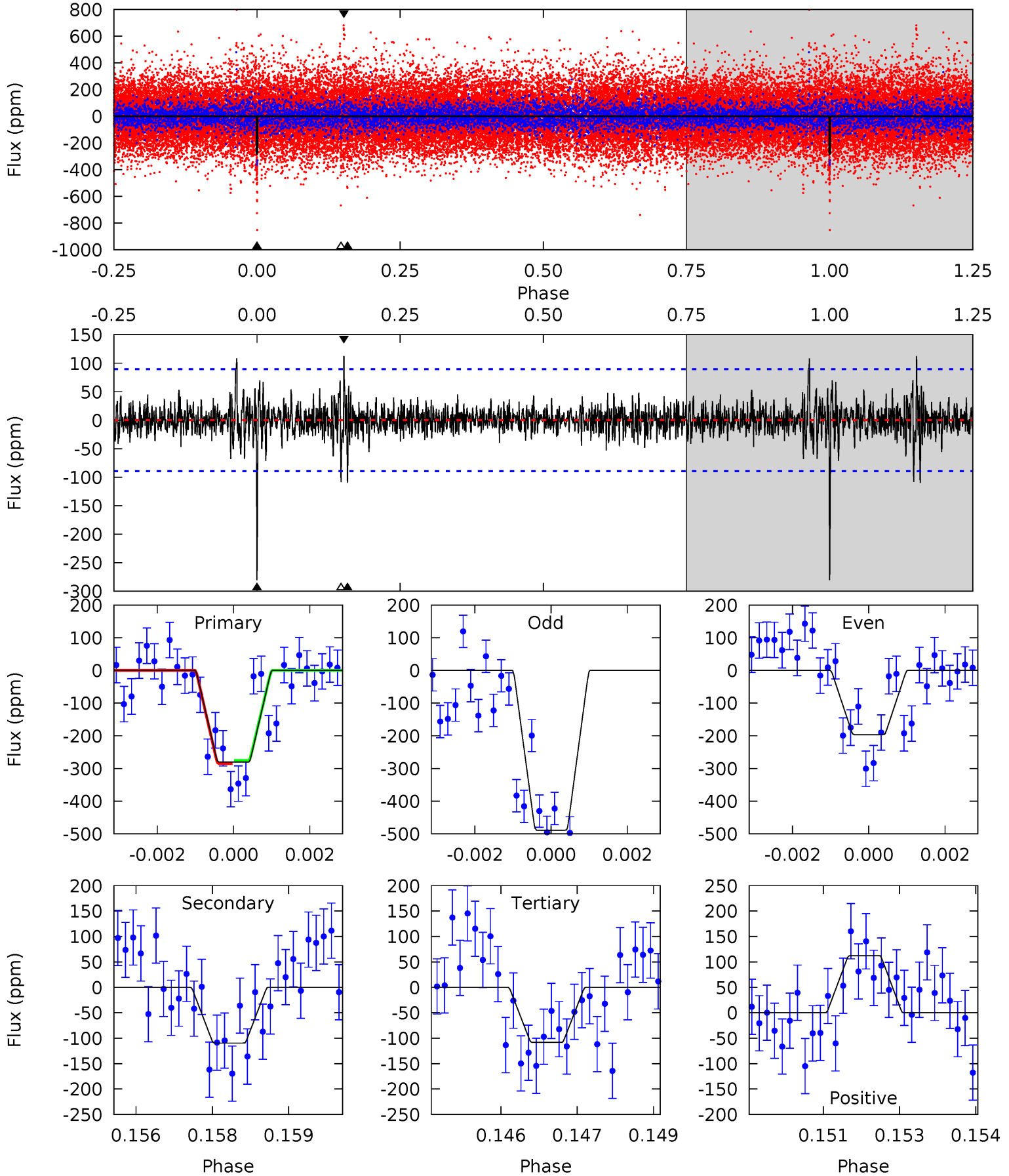
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.9	9.57	9.17	7.00	5.32	3.08	1.81	7.73	9.90	0.40	2.57	4.79	0.87	0.38	3.03



Alt Model-Shift Uniqueness Test

007287786-02, P = 365.072794 Days, E = 187.110383 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.8	6.56	6.47	6.72	5.35	3.14	1.15	10.3	10.0	0.08	-0.17	7.58	0.94	0.29	0.30



Stellar Parameters For KIC 007287786

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7780^{+69}_{-100}	$3.841^{+0.196}_{-0.098}$	$0.210^{+0.150}_{-0.200}$	$2.899^{+0.473}_{-0.710}$	$2.124^{+0.157}_{-0.292}$	$0.123^{+0.130}_{-0.039}$
	+1%/-1%	+5%/-3%	+71%/-95%	+16%/-24%	+7%/-14%	+106%/-32%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007287786-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-154 ± 16	$4.60^{+1.79}_{-1.72}$	715^{+31}_{-45}	6887^{+2189}_{-1042}	6542^{+9885}_{-3259}
Alt.	-110 ± 17	$5.48^{+1.79}_{-1.62}$	714^{+32}_{-44}	5798^{+1032}_{-671}	3282^{+3422}_{-1484}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

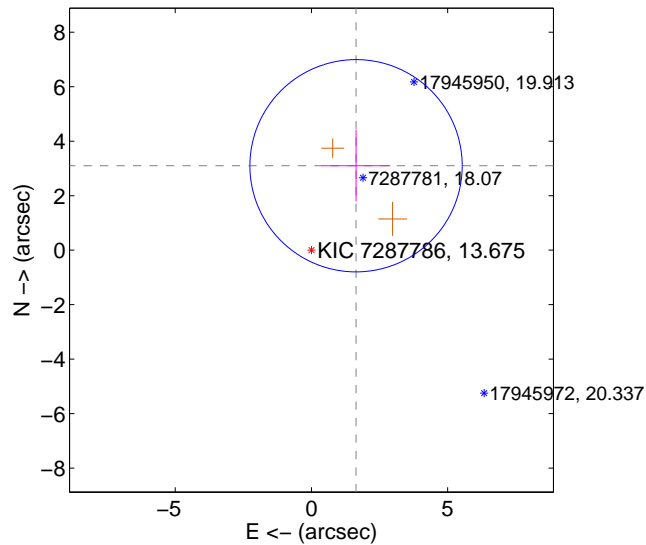
Supplemental centroid analysis for 007287786-02. Kepler magnitude: 13.68. Transit SNR 7.72

There are 0 quarters with good PRF difference image offsets

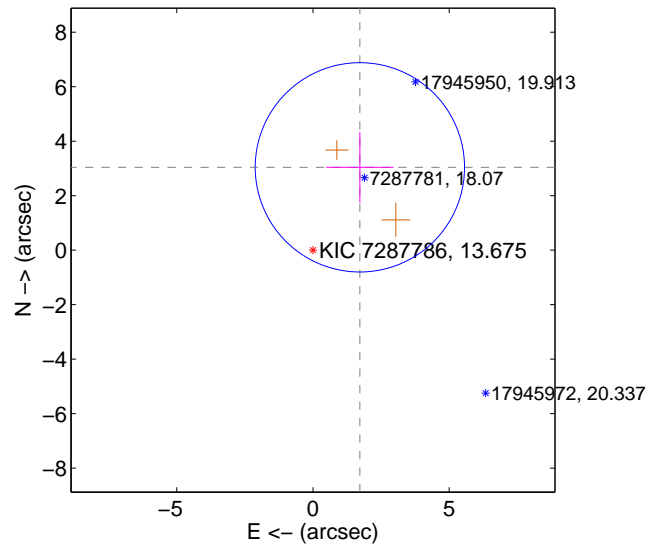
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.505 ± 1.299	2.70	-1.638 ± 1.255	3.099 ± 1.311
PRF-fit source offset from KIC position	3.495 ± 1.281	2.73	-1.722 ± 1.236	3.041 ± 1.295
photometric centroid source offset	0.37 ± 1.04	0.35	-0.15 ± 1.15	0.34 ± 1.02

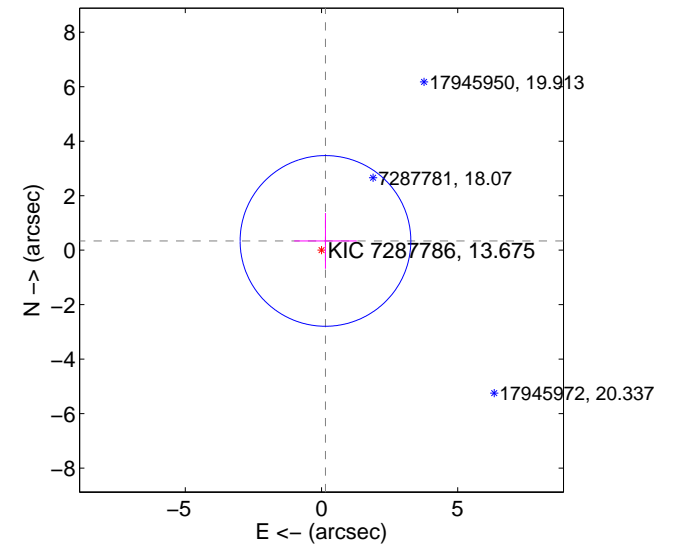
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

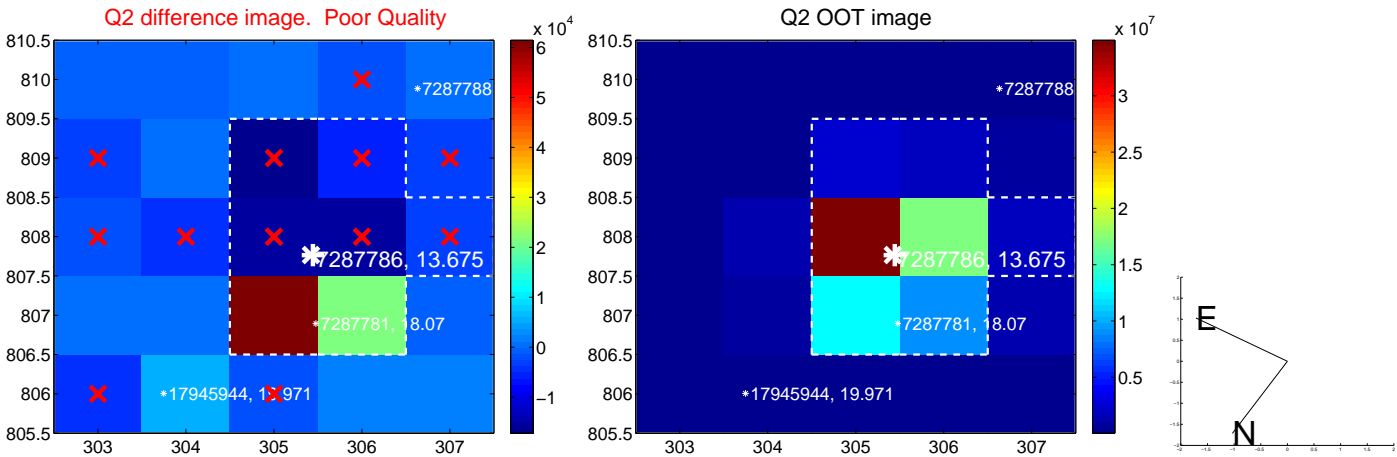
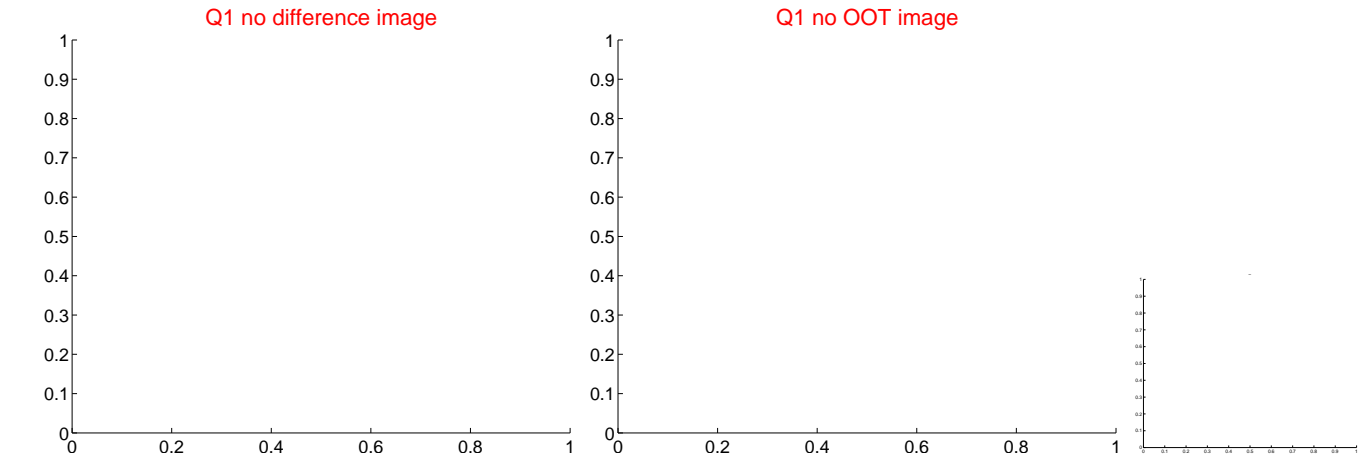


offset from photometric centroids



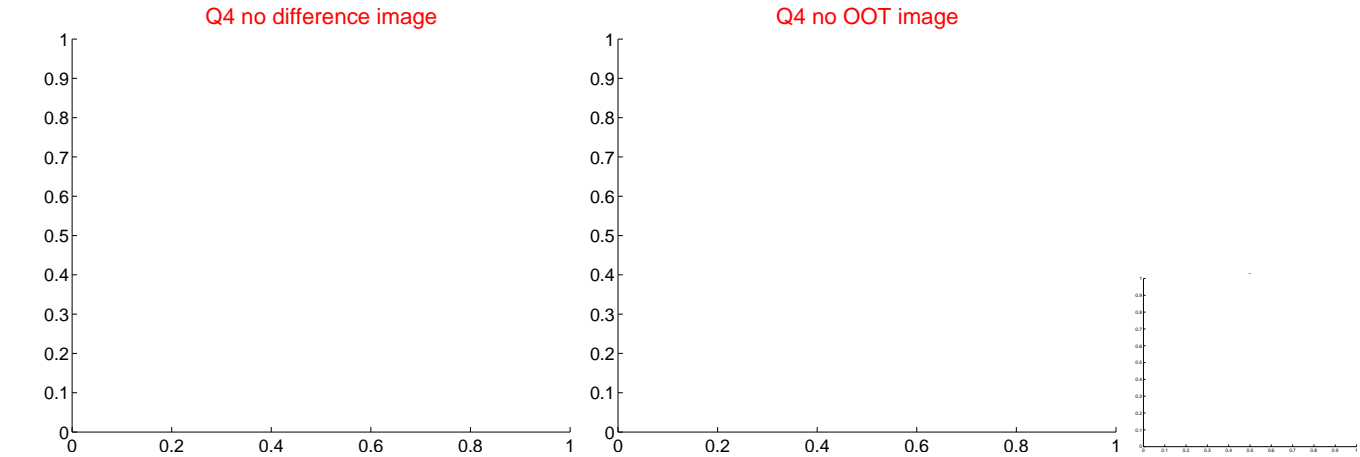
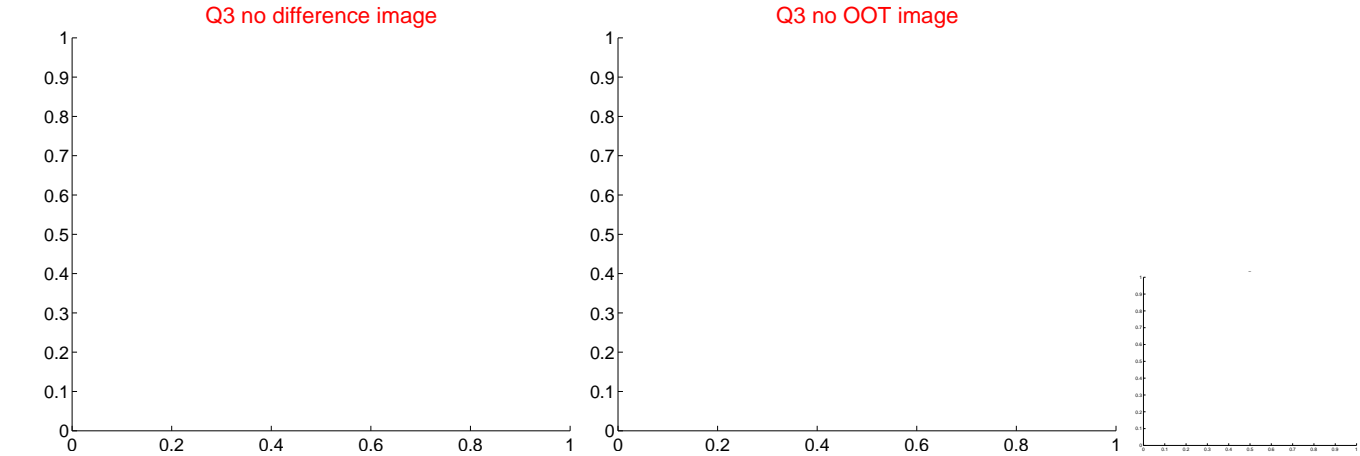
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

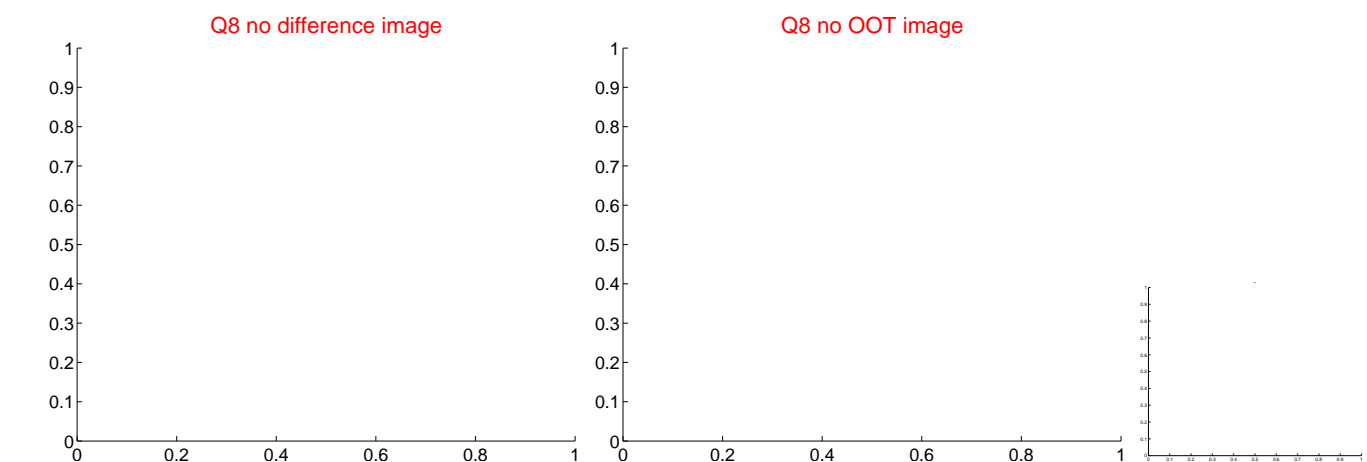
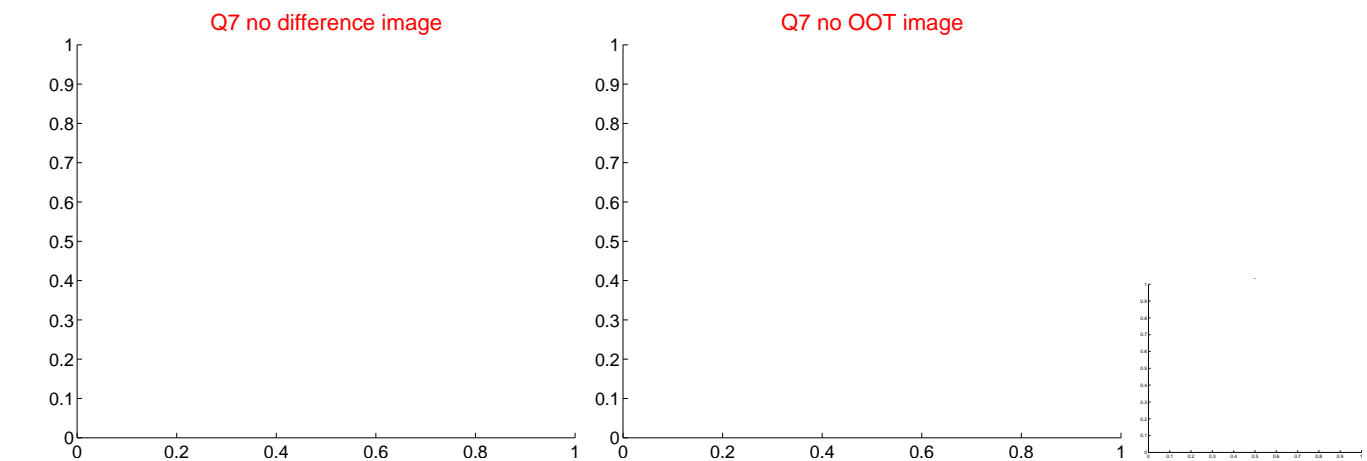
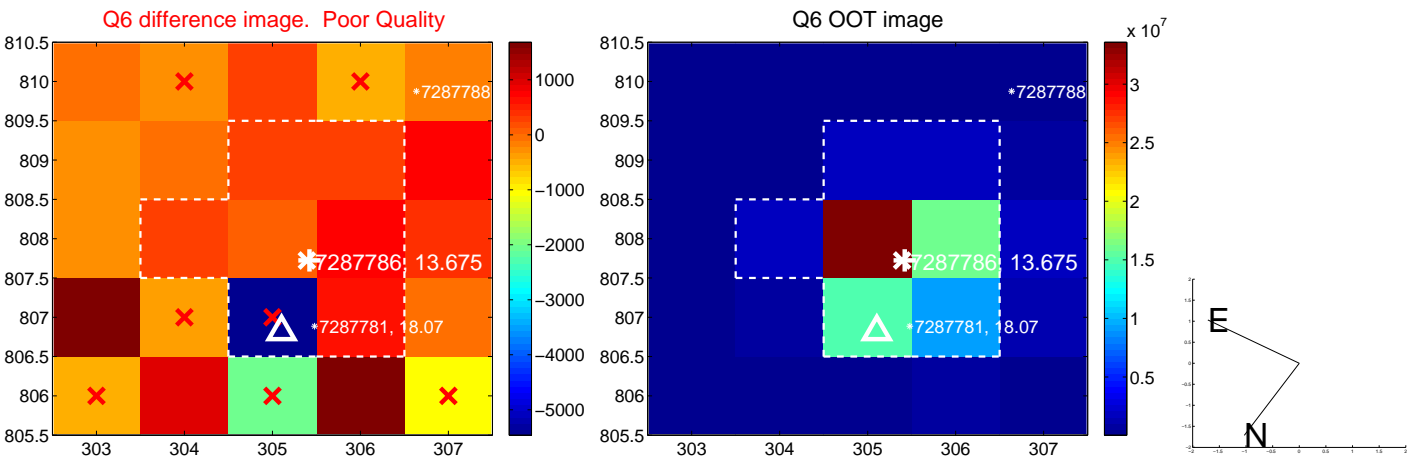
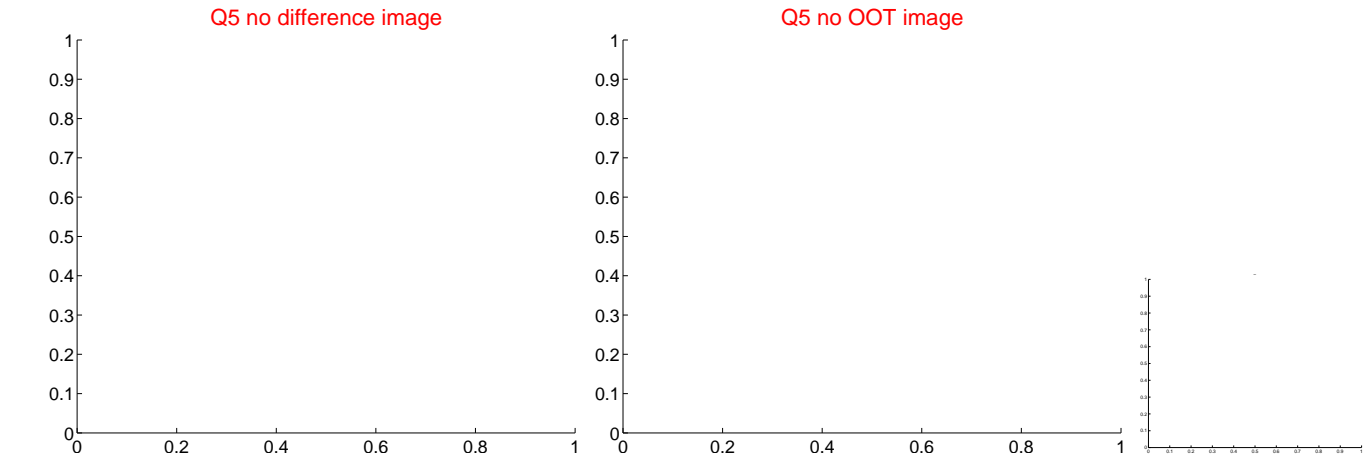


E

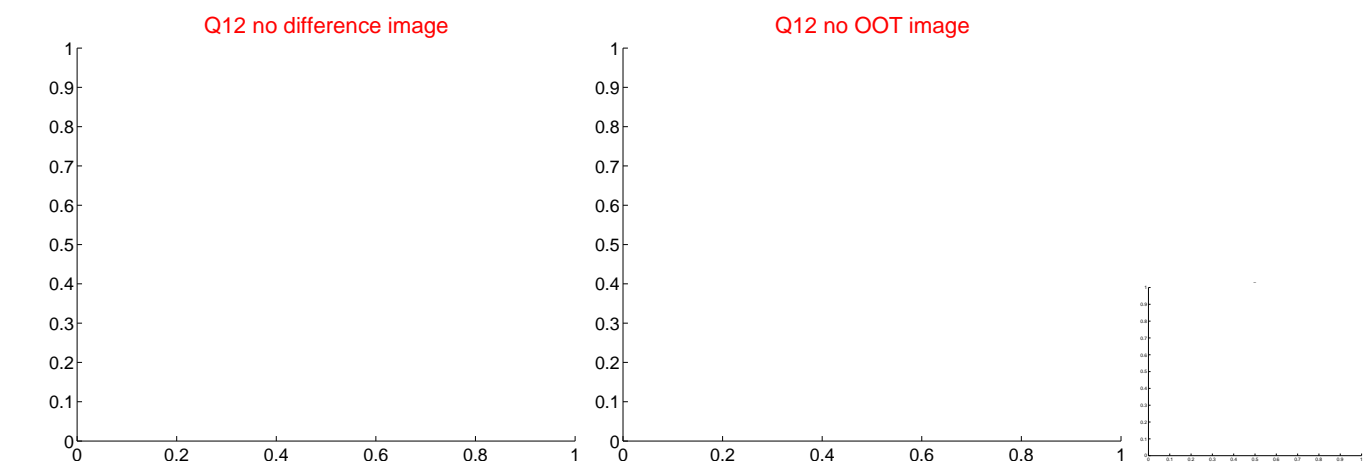
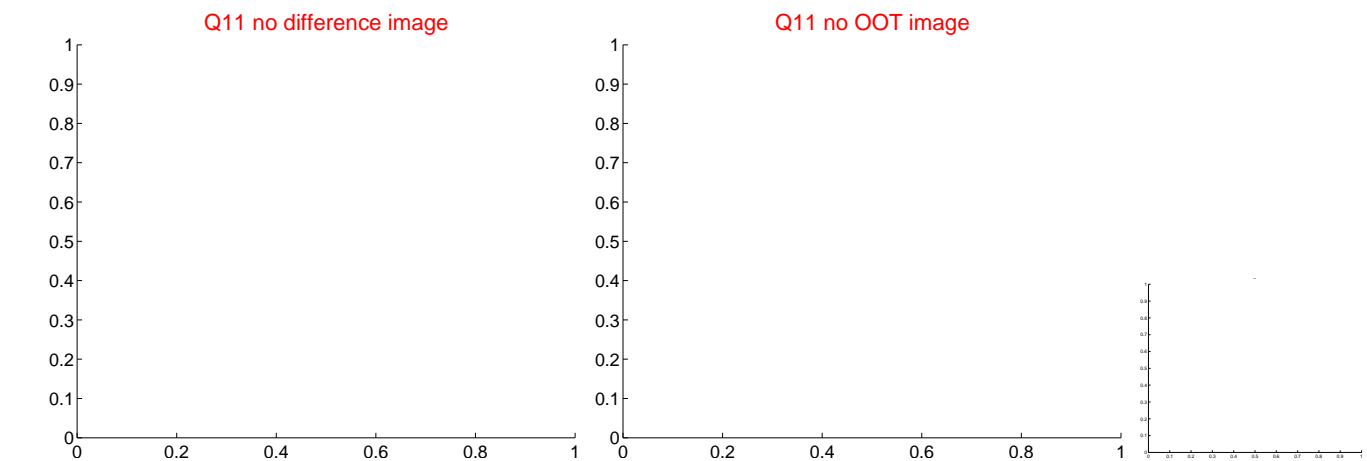
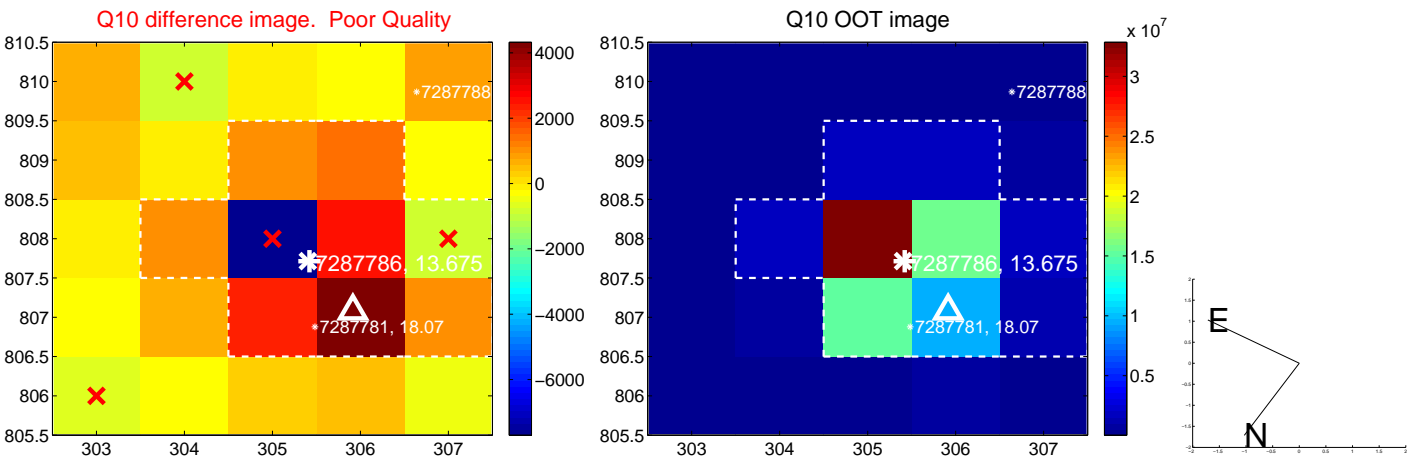
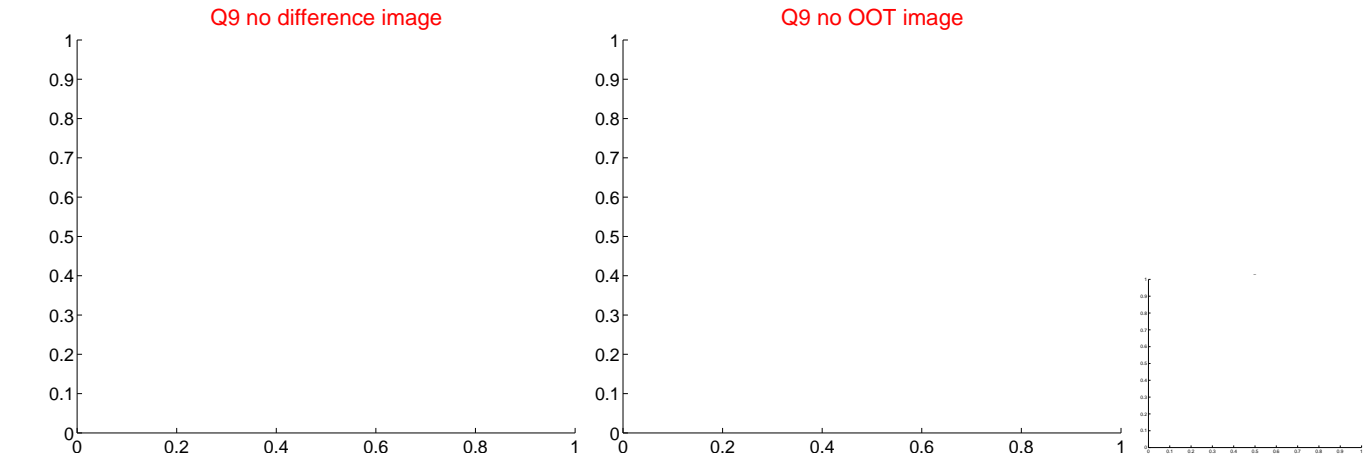
N



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



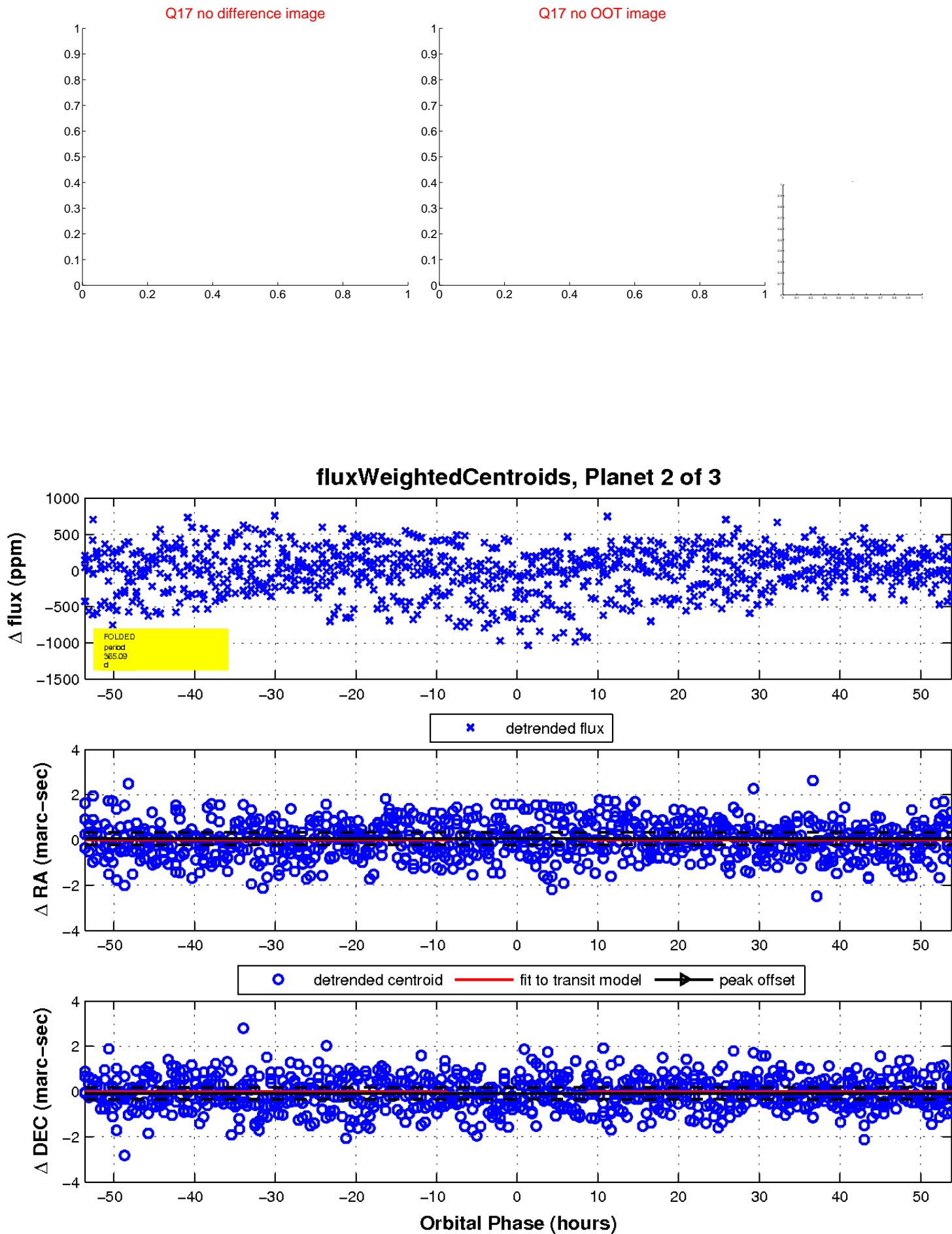
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

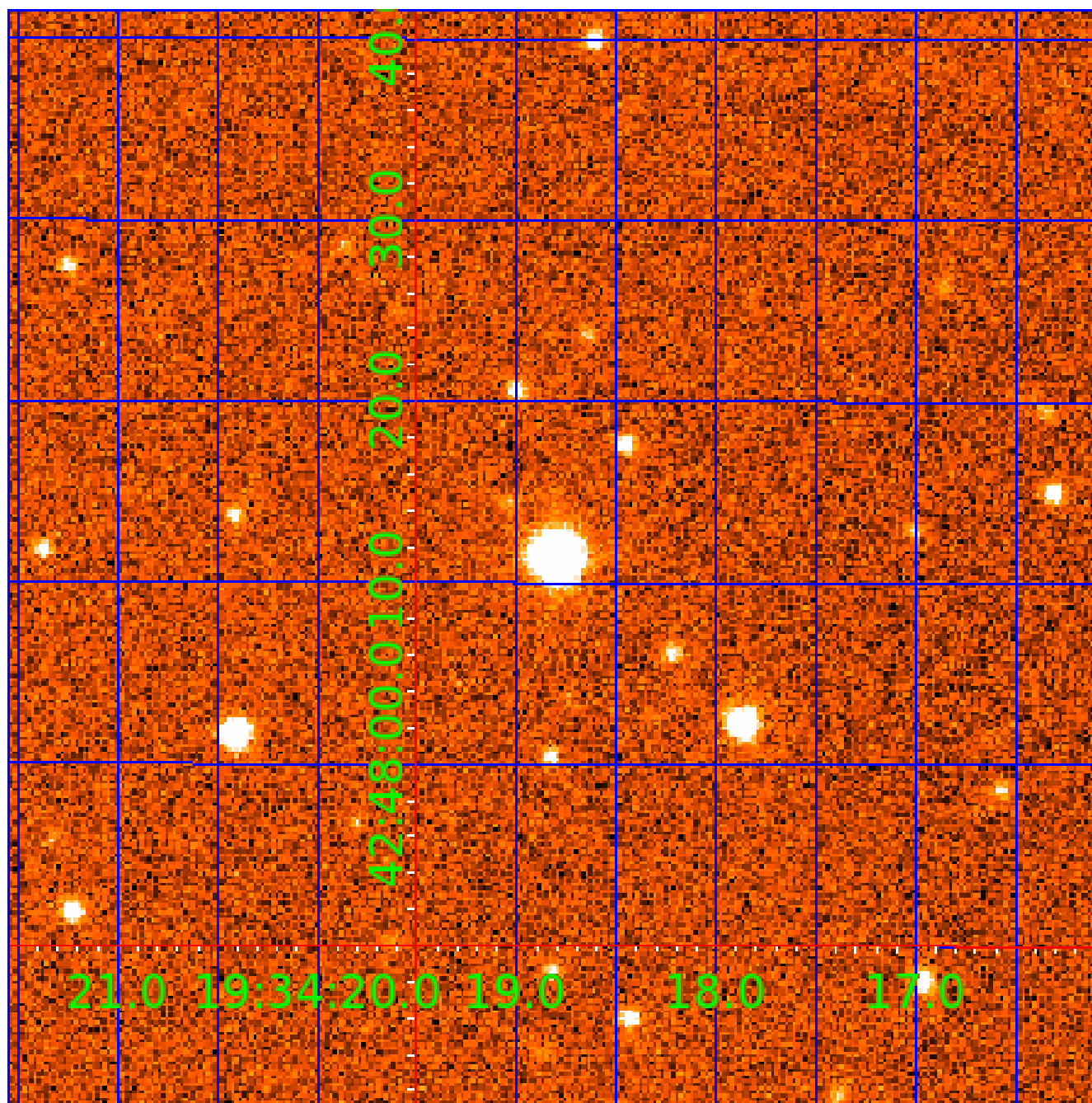


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007287786

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007287786-01	OBS	No	3.993158	133.168337	23.4	11.586	10.3	10.3	2.90	7780	1.60	6874.21
007287786-02	OBS	No	365.087278	187.118633	250.6	17.969	7.9	7.7	2.90	7780	4.81	16.69
007287786-03	OBS	No	3.992842	131.856231	18.7	10.288	8.0	8.1	2.90	7780	1.50	6874.94

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007287786-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT
007287786-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—INCONSISTENT_TRANS—CENT_FEW_DIFFS
007287786-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

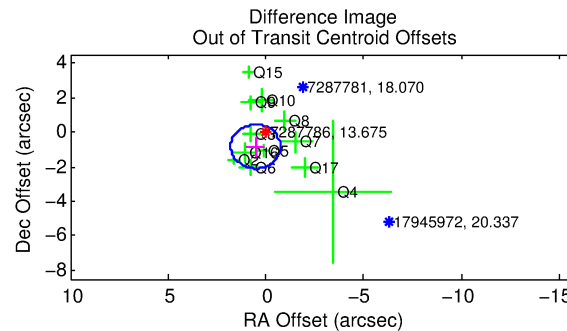
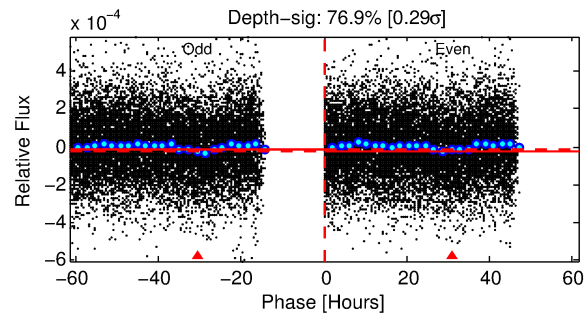
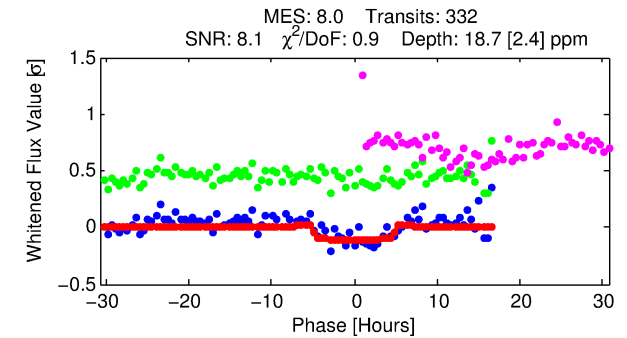
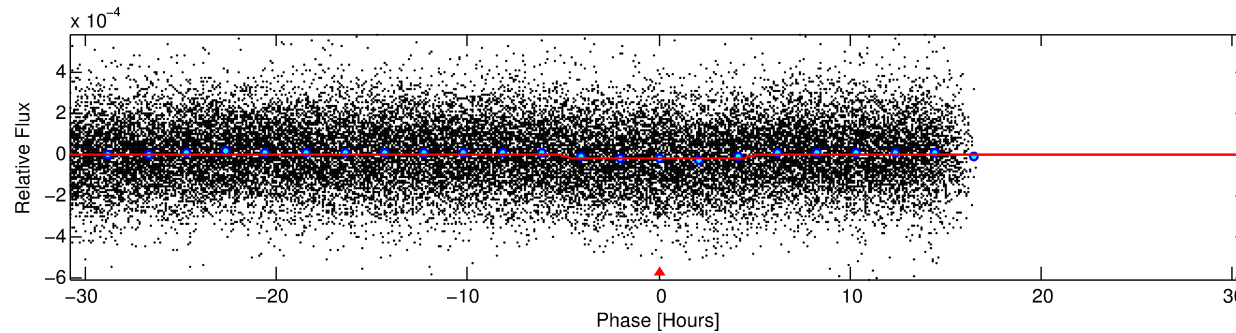
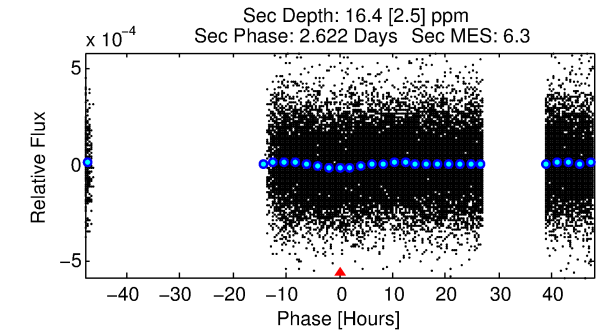
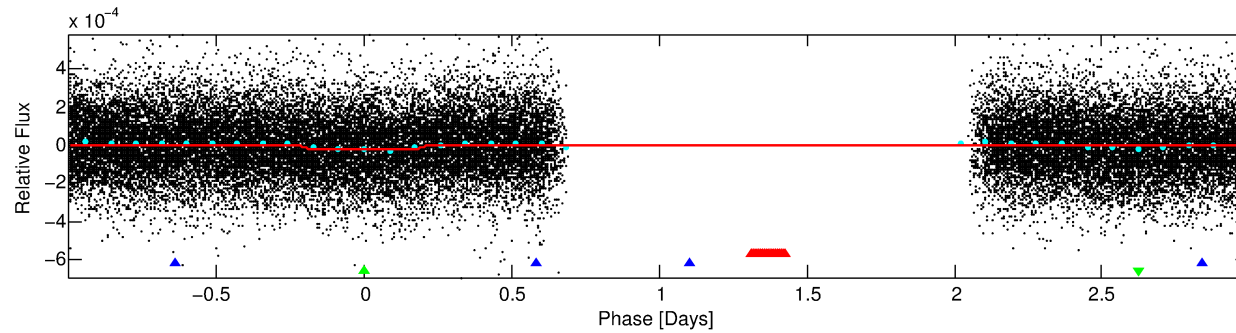
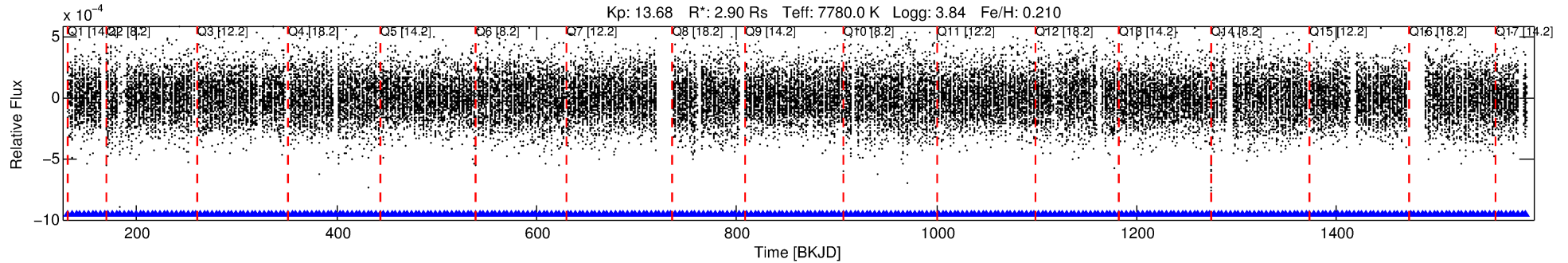
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007287786-03

No Significant Match Found

DV One-Page Summary

KIC: 7287786 Candidate: 3 of 3 Period: 3.993 d



DV Fit Results:

Period = 3.99284 [0.00008] d
Epoch = 131.8562 [0.0137] BKJD
Rp/R* = 0.0047 [0.0011]
a/R* = 1.47 [1.12]
b = 0.93 [0.20]
Seff = 6874.94 [2379.82]
Teq = 2322 [201] K
Rp = 1.50 [0.50] Re
a = 0.0633 [0.0141] AU
Ag = 16.08 [9.46] [1.59σ]
Teffp = 7189 [864] K [5.49σ]

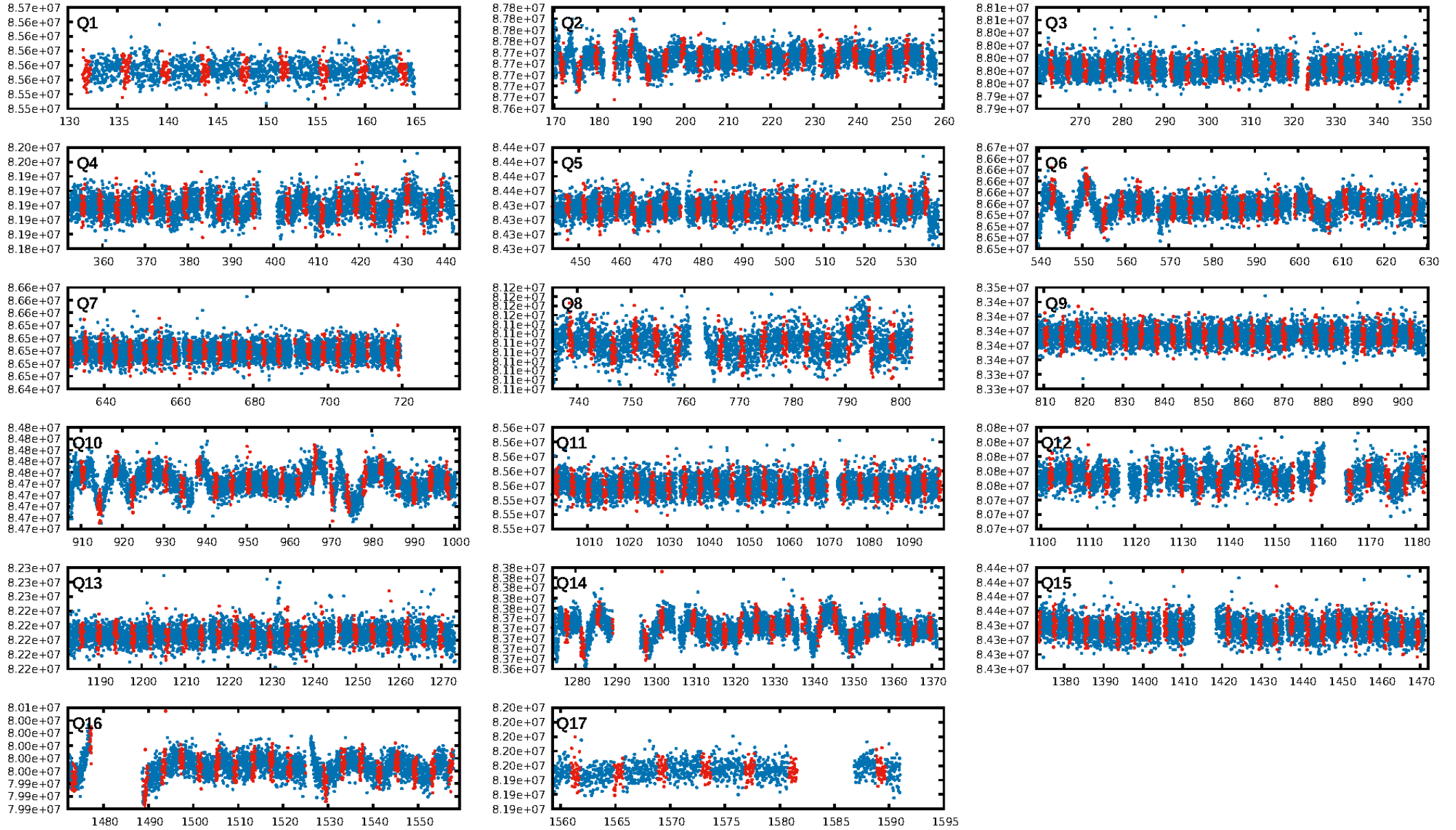
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.15e-14
RollingBand-fgt: 1.00 [316/316]
GhostDiagnostic-chr: -10.16
Centroid-sig: 73.8%
Centroid-so: 0.835 arcsec [0.48σ]
OotOffset-rm: 0.996 arcsec [2.35σ]
KicOffset-rm: 1.009 arcsec [2.18σ]
OotOffset-st: 3/3/3/3 [12]
KicOffset-st: 3/3/3/3 [12]
DiffImageQuality-fgm: 0.75 [9/12]
DiffImageOverlap-fno: 1.00 [17/17]

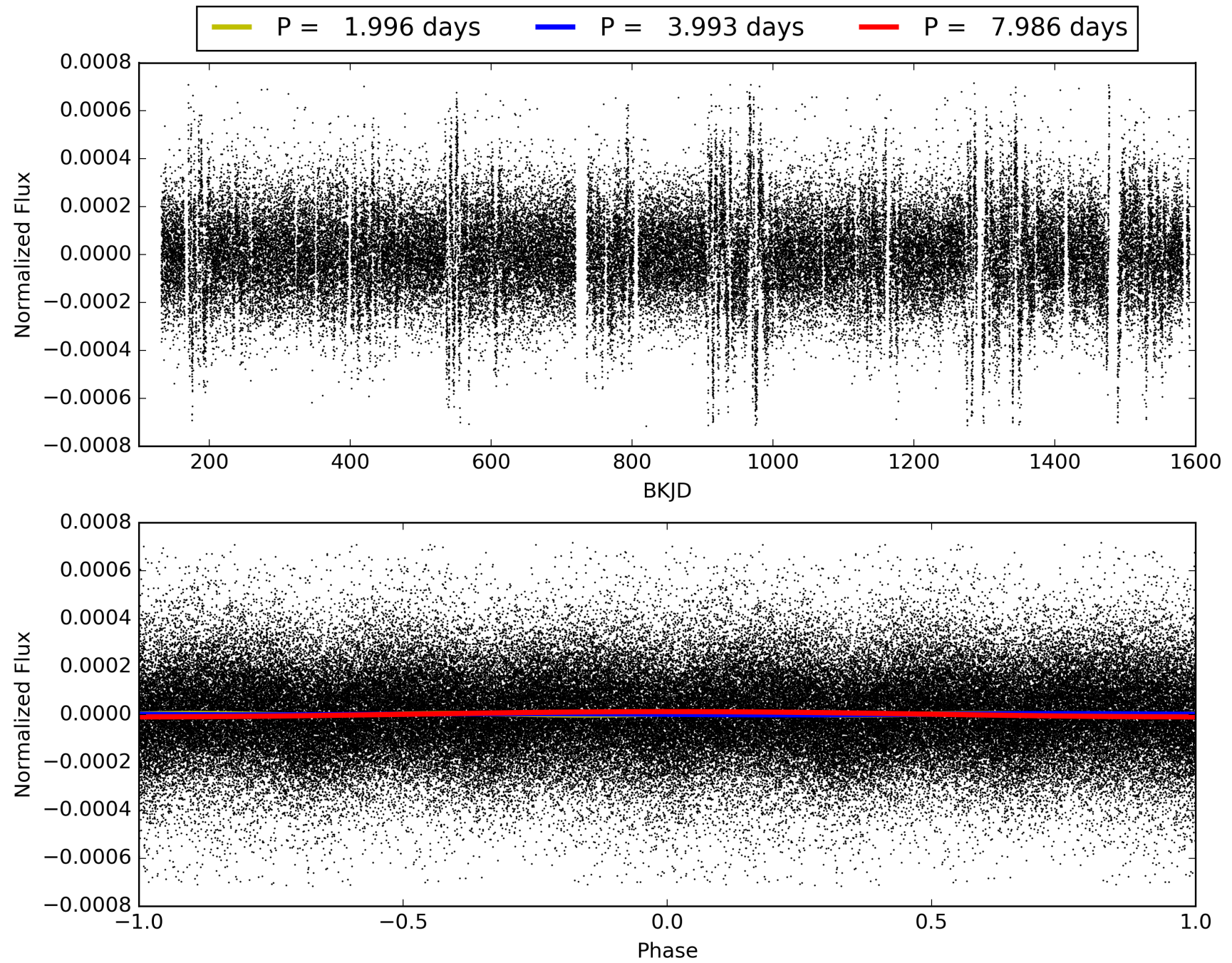
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:24:30 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007287786-03, PDC Light Curves

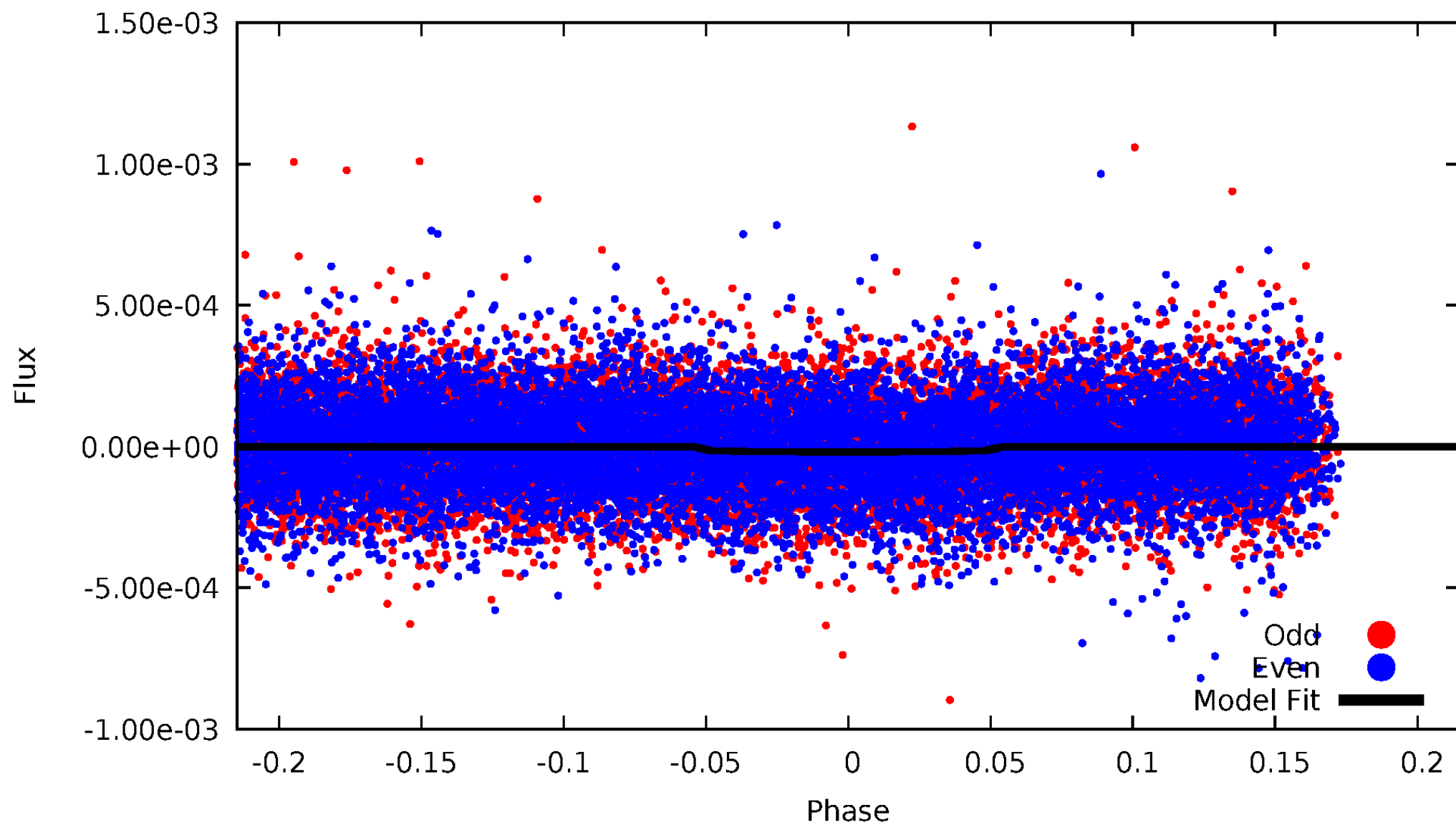


TCE 007287786-03



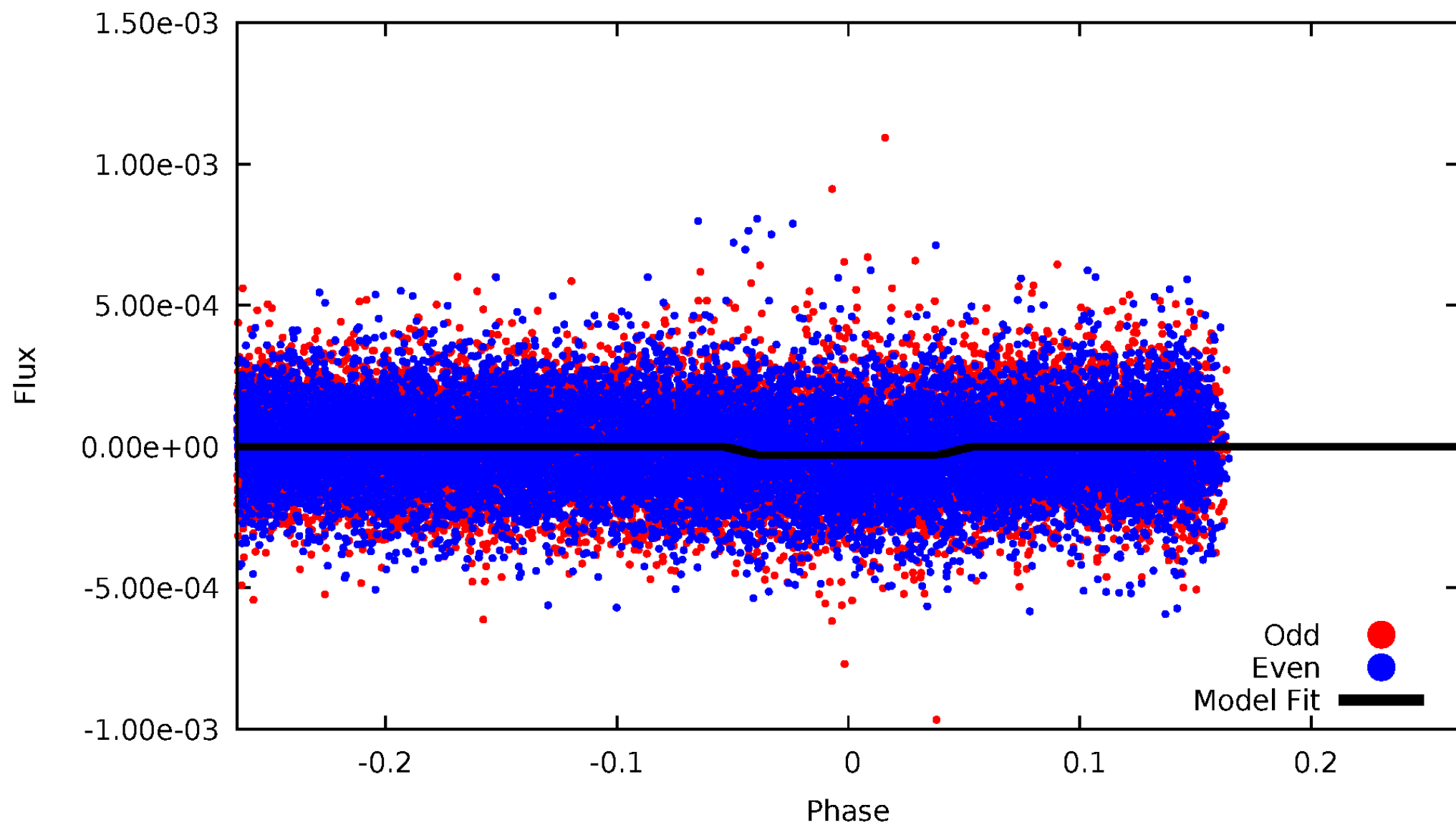
DV Odd/Even

TCE 007287786-03



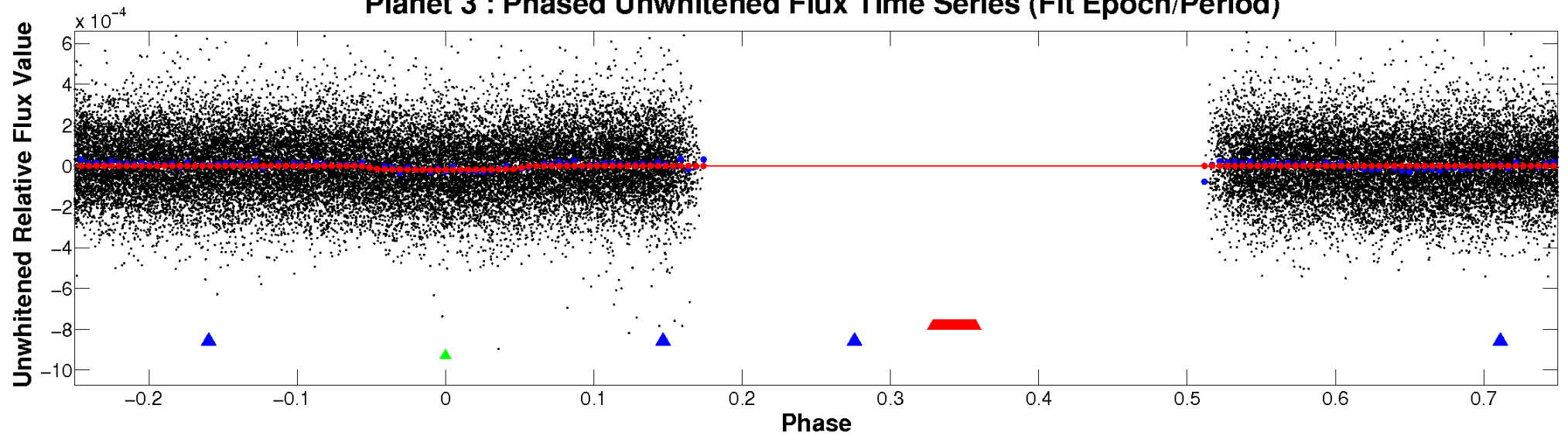
ALT Odd/Even

TCE 007287786-03

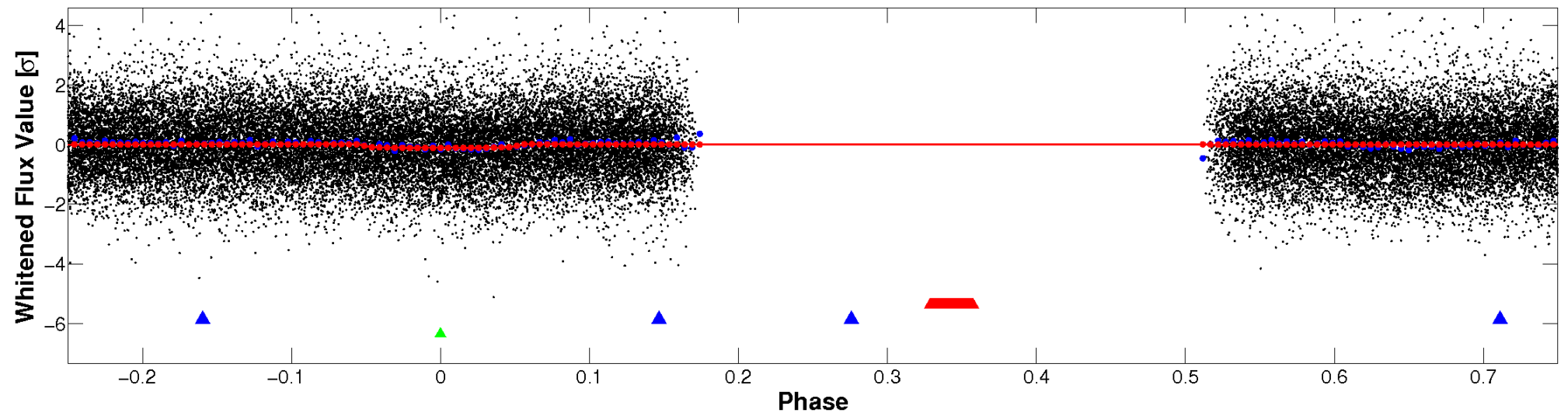


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

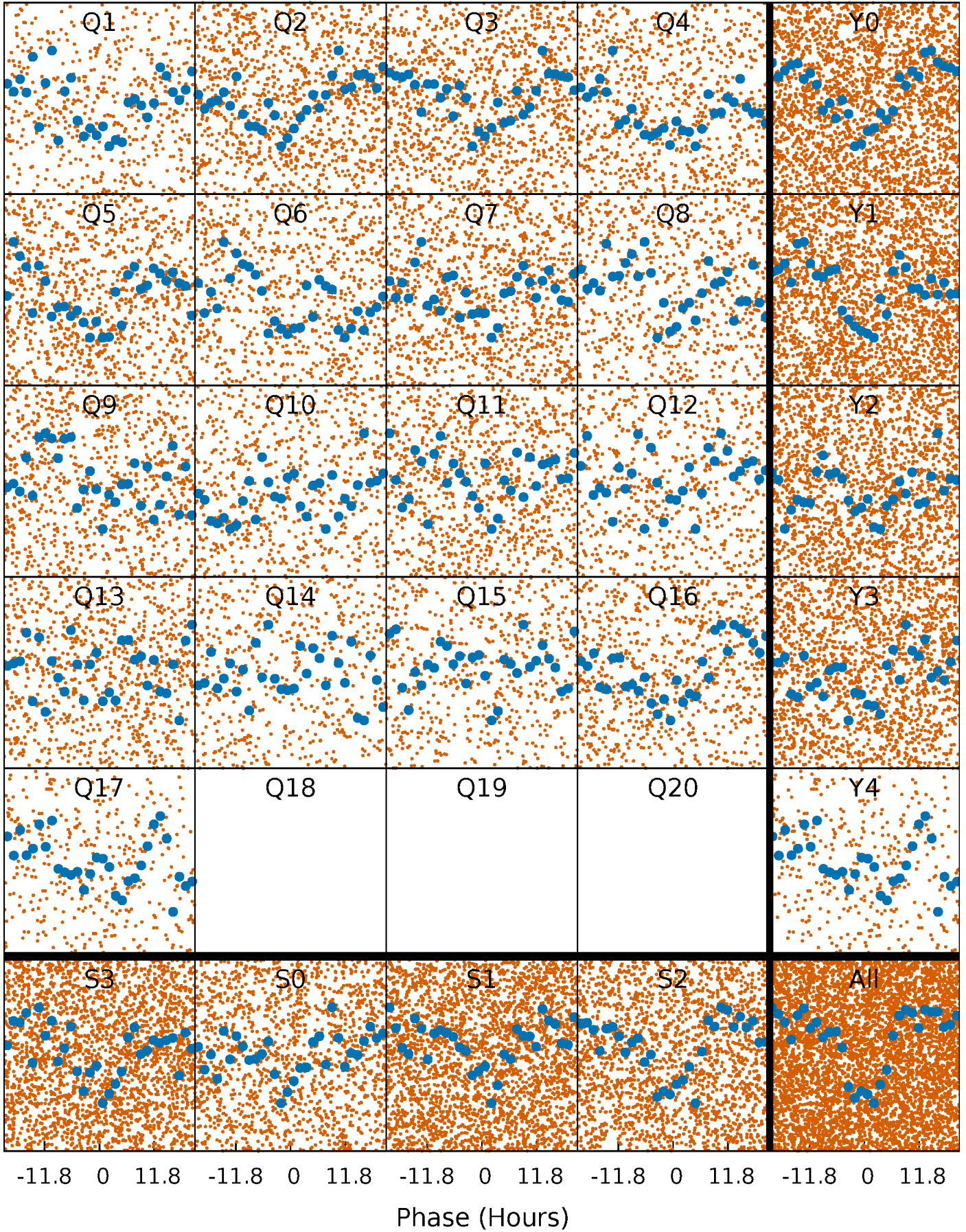


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



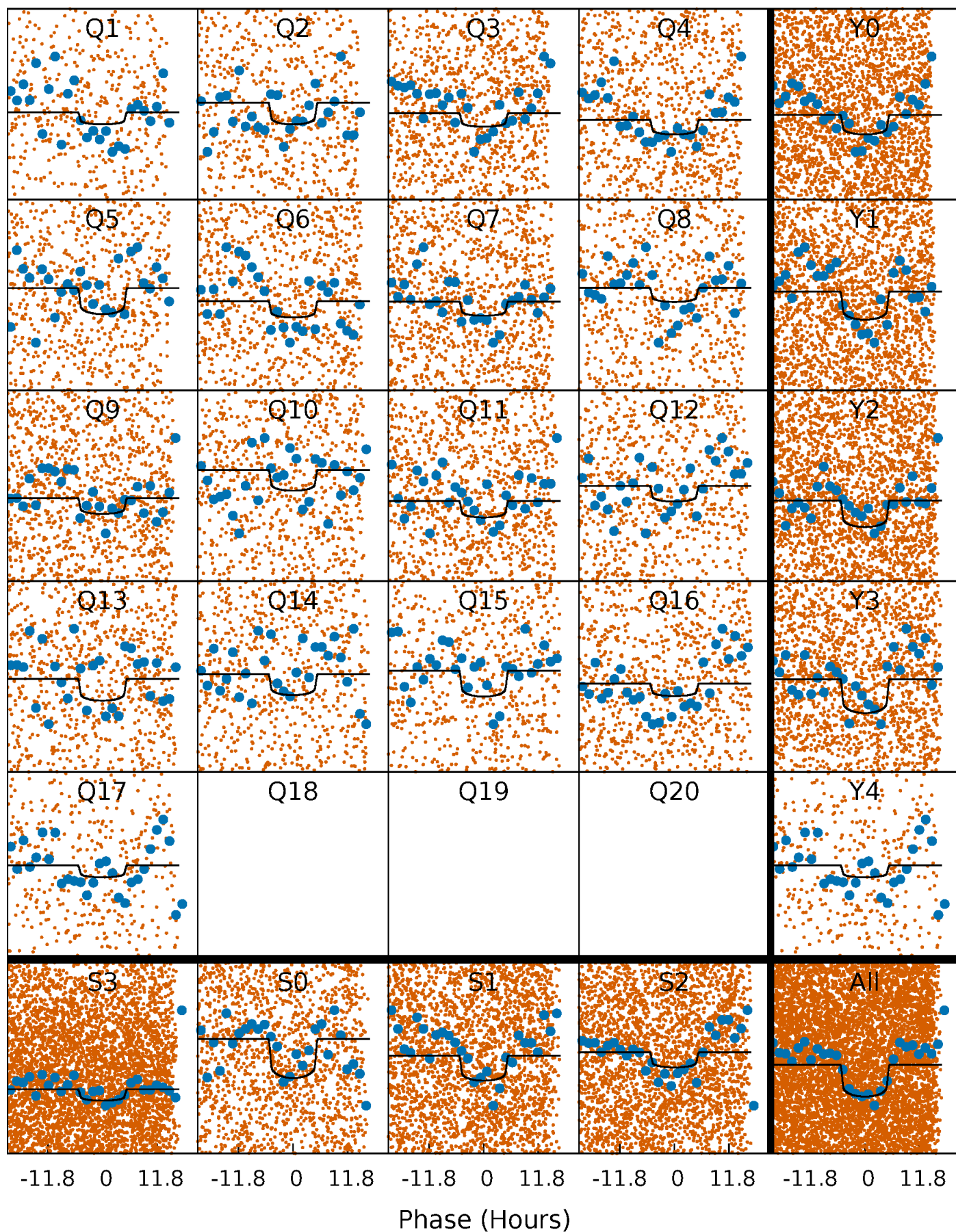
PDC Quarter-Phased Transit Curves

TCE 007287786-03 P= 3.992842 Days $T_0=131.856231$ (BKJD)



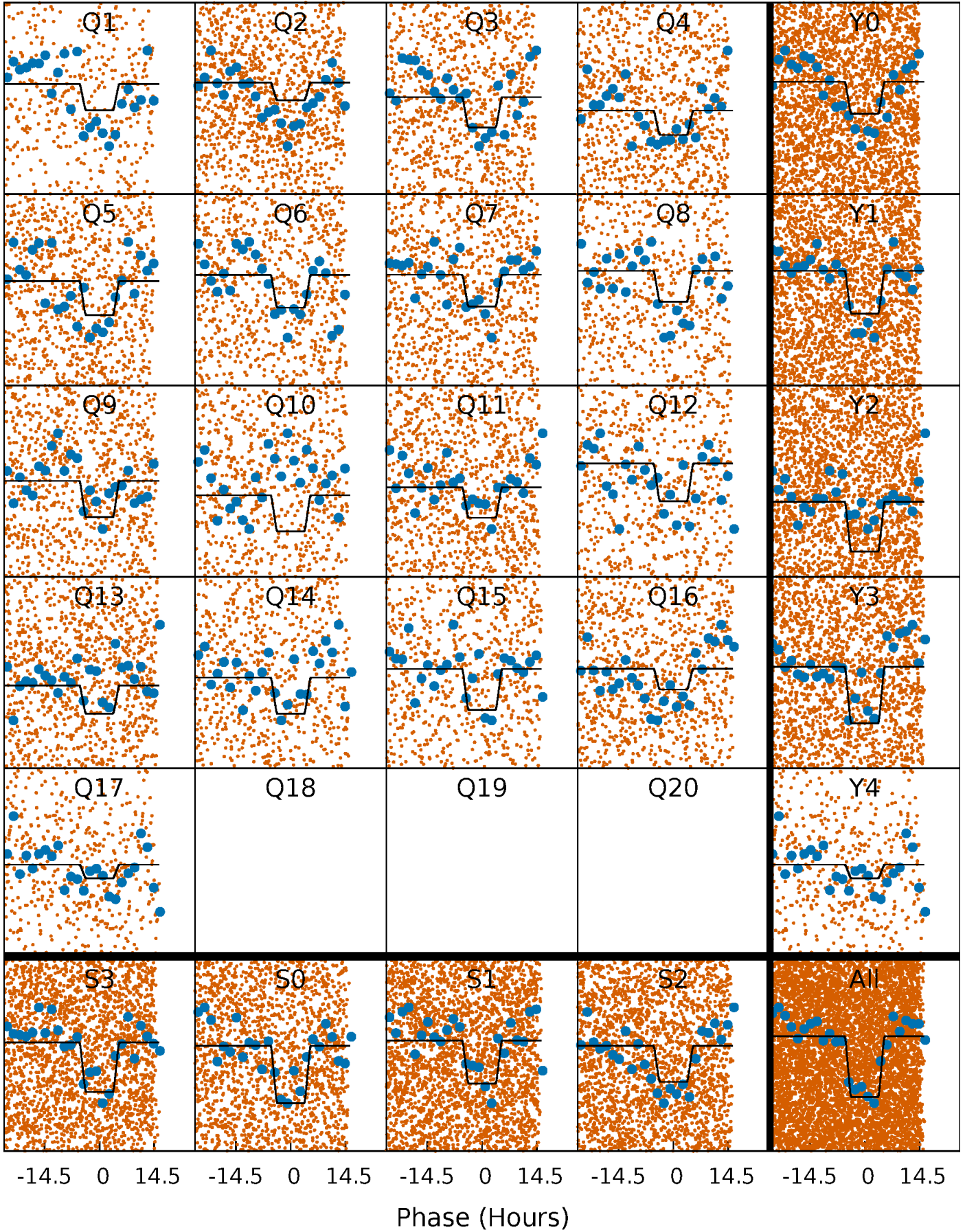
DV Quarter-Phased Transit Curves

TCE 007287786-03 P= 3.992842 Days $T_0=131.856231$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

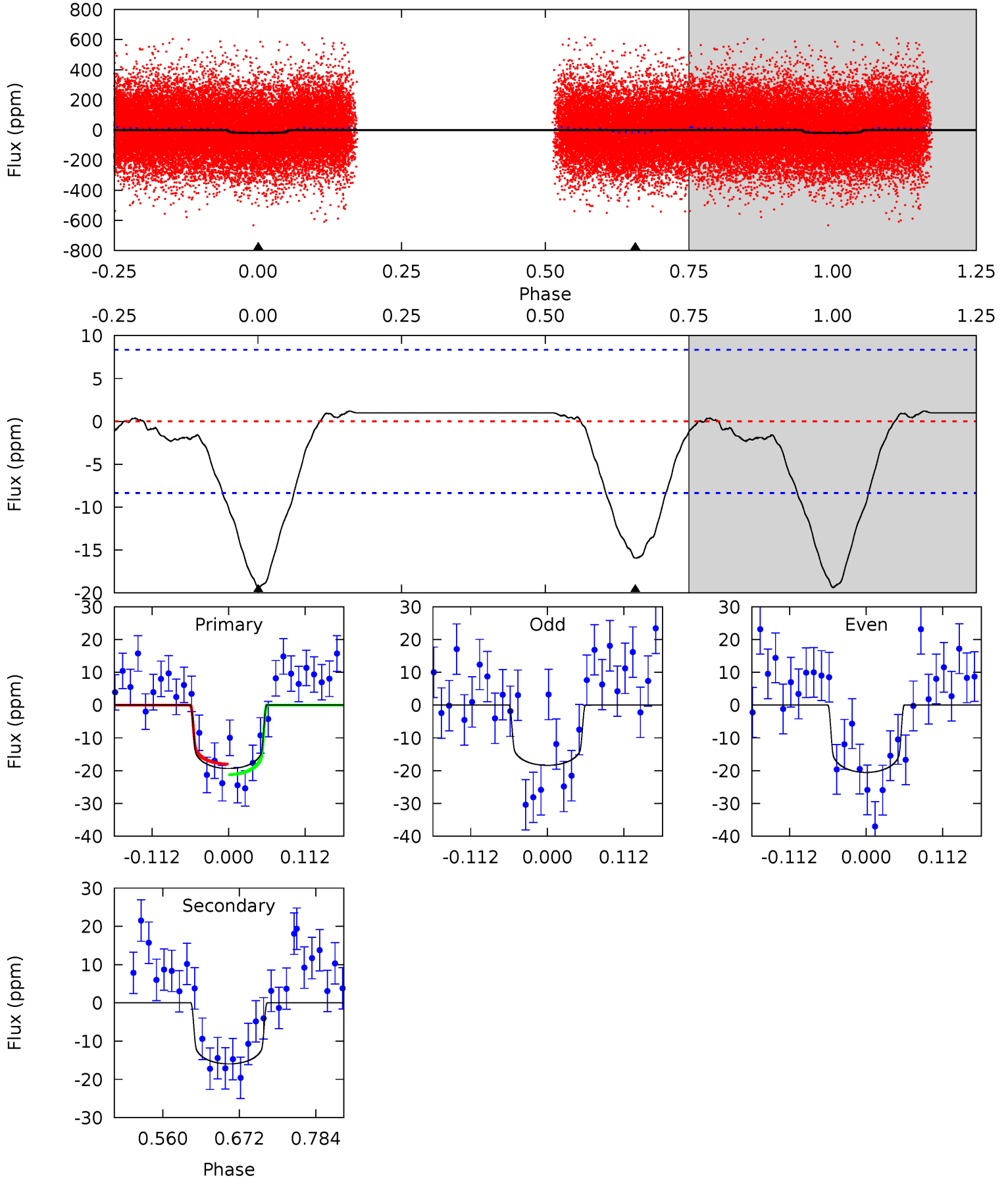
TCE 007287786-03 P= 3.992969 Days $T_0=131.845160$ (BKJD)



DV Model-Shift Uniqueness Test

007287786-03, P = 3.992842 Days, E = 127.863389 Days

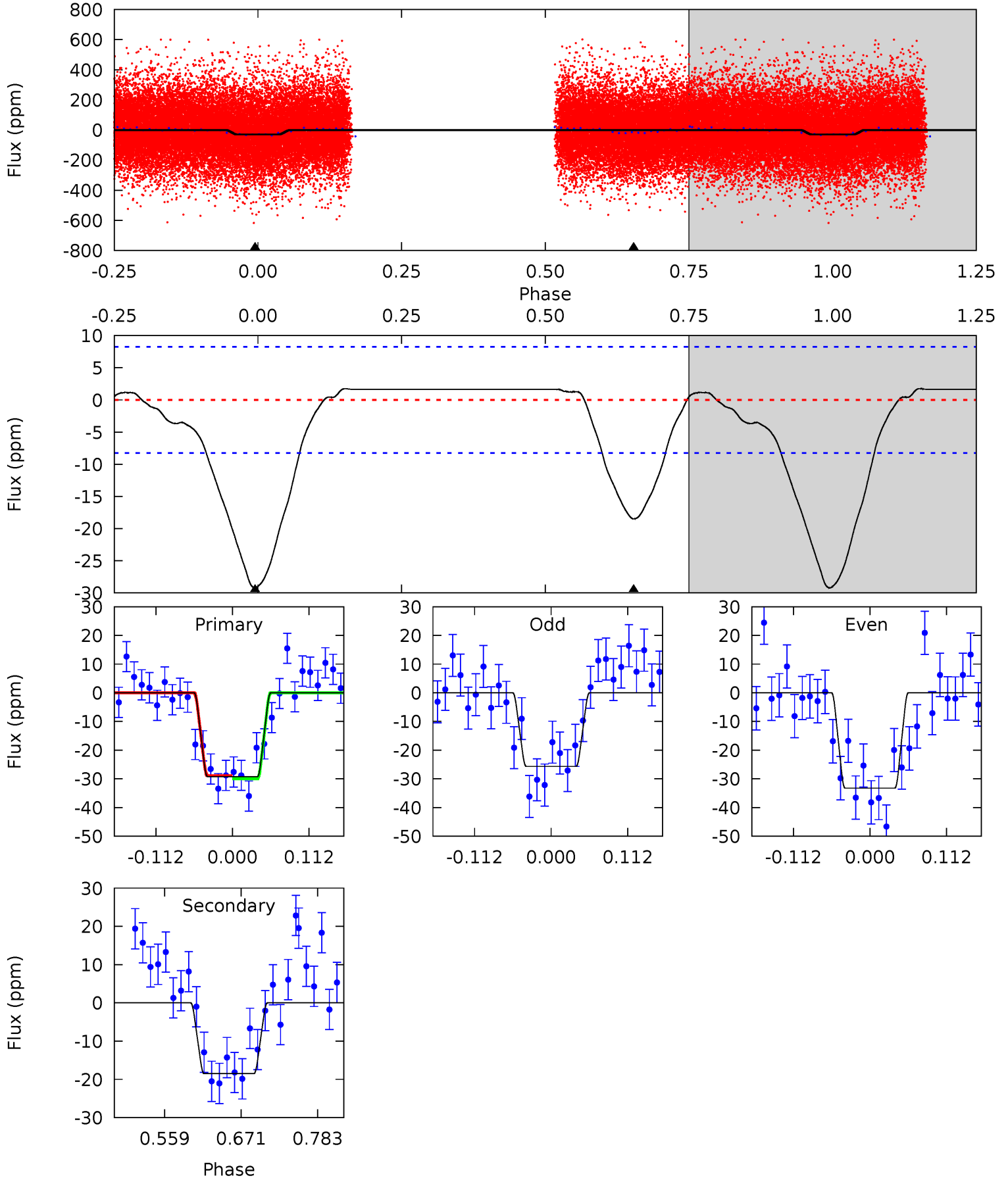
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.5	8.67	0	0	4.54	1.59	0.64	10.5	10.5	8.67	8.67	0.59	1.19	0.06	0.88



Alt Model-Shift Uniqueness Test

007287786-03, P = 3.992969 Days, E = 127.852191 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.1	10.2	0	0	4.54	1.59	1.06	16.1	16.1	10.2	10.2	2.09	1.07	0.06	0.30



Stellar Parameters For KIC 007287786

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7780^{+69}_{-100}	$3.841^{+0.196}_{-0.098}$	$0.210^{+0.150}_{-0.200}$	$2.899^{+0.473}_{-0.710}$	$2.124^{+0.157}_{-0.292}$	$0.123^{+0.130}_{-0.039}$
	+1%/-1%	+5%/-3%	+71%/-95%	+16%/-24%	+7%/-14%	+106%/-32%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007287786-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-16 ± 2	$1.44^{+0.43}_{-0.36}$	3225^{+135}_{-211}	7006^{+1229}_{-816}	17^{+14}_{-7}
Alt.	-18 ± 2	$1.66^{+0.40}_{-0.35}$	3212^{+152}_{-178}	6771^{+823}_{-646}	14^{+9}_{-5}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

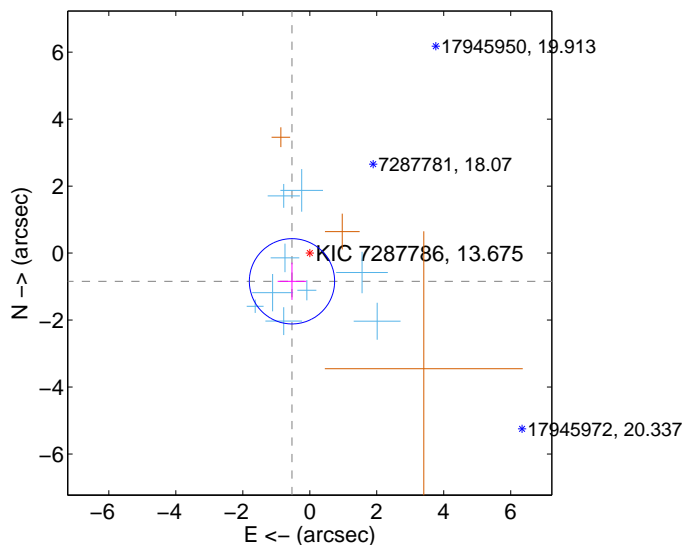
Supplemental centroid analysis for 007287786-03. Kepler magnitude: 13.68. Transit SNR 8.06

There are 9 quarters with good PRF difference image offsets

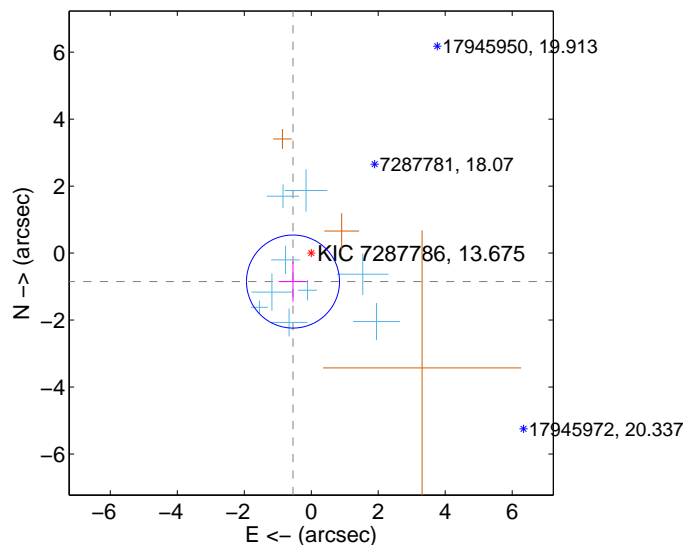
The direct PRF centroid is offset from the target star catalog position by about 0.06 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.996 ± 0.424	2.35	0.531 ± 0.429	-0.842 ± 0.555
PRF-fit source offset from KIC position	1.009 ± 0.463	2.18	0.545 ± 0.430	-0.849 ± 0.601
photometric centroid source offset	0.83 ± 1.73	0.48	0.63 ± 1.81	-0.55 ± 1.61

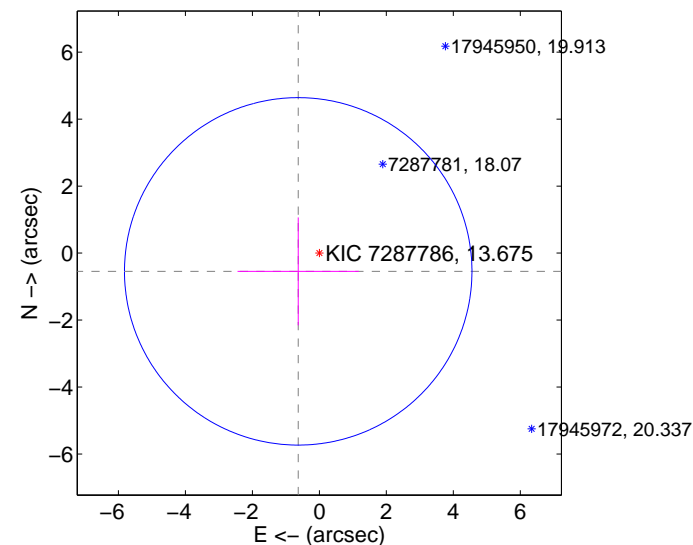
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

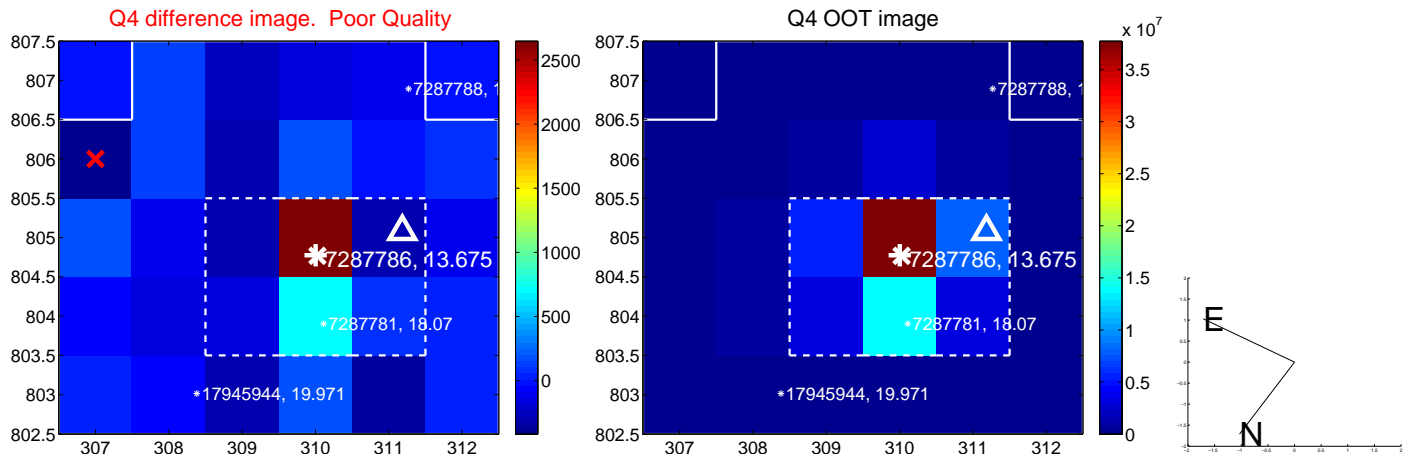
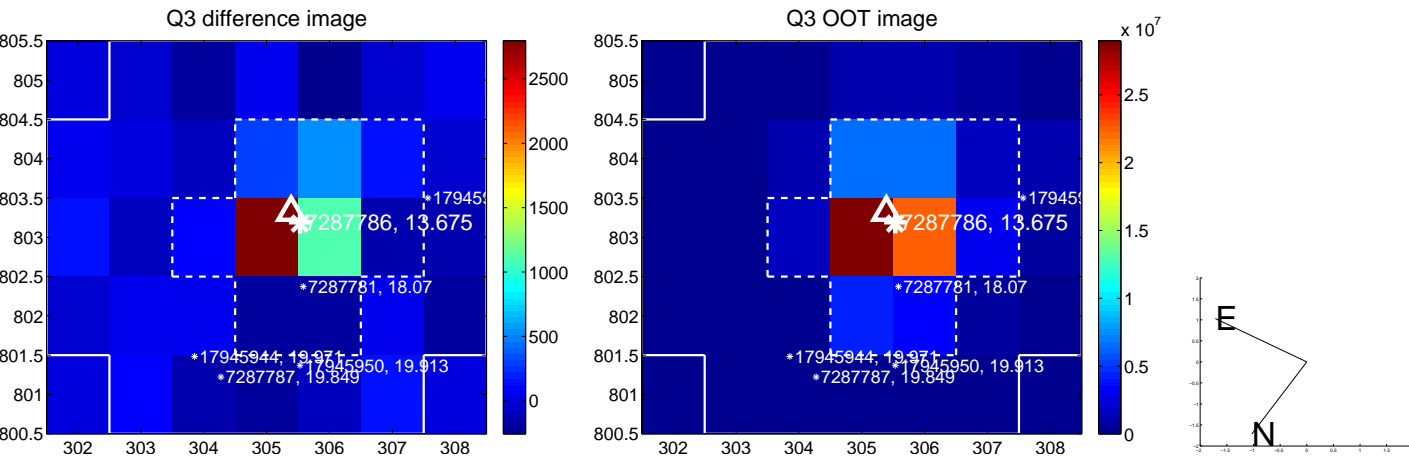
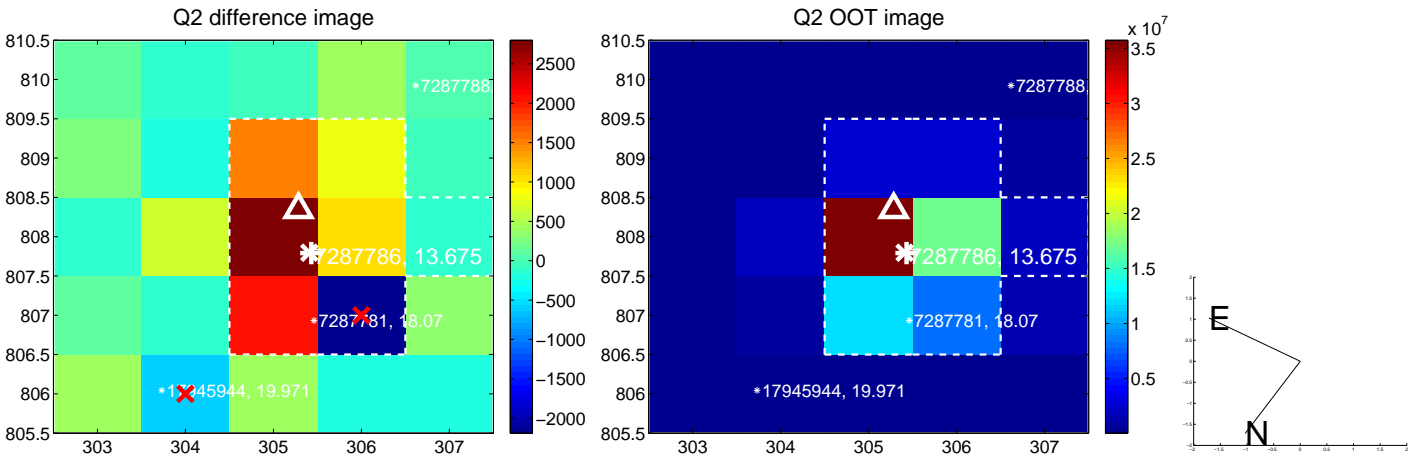
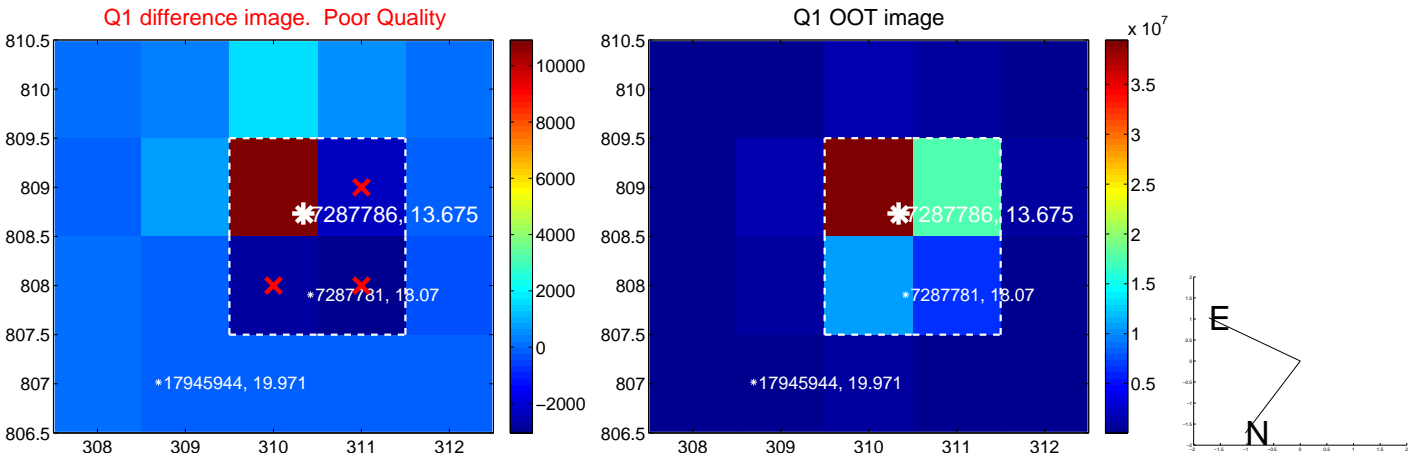


offset from photometric centroids

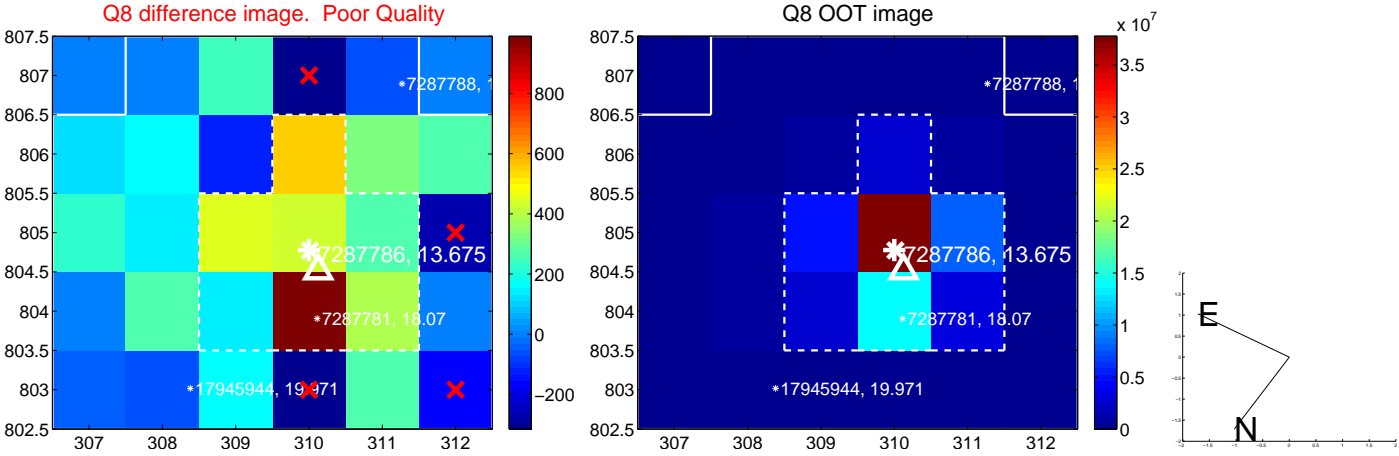
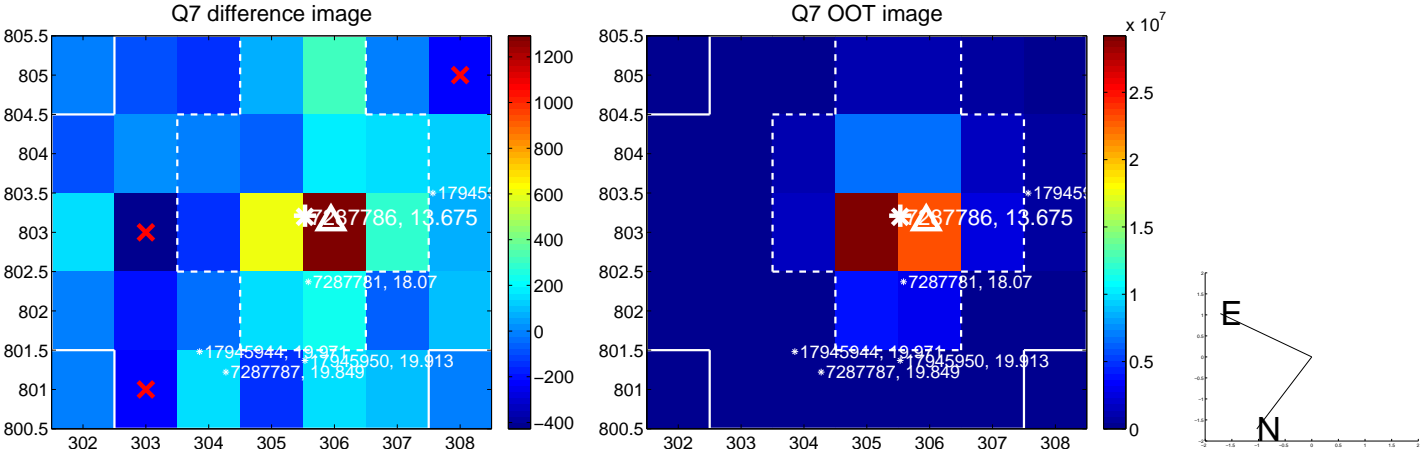
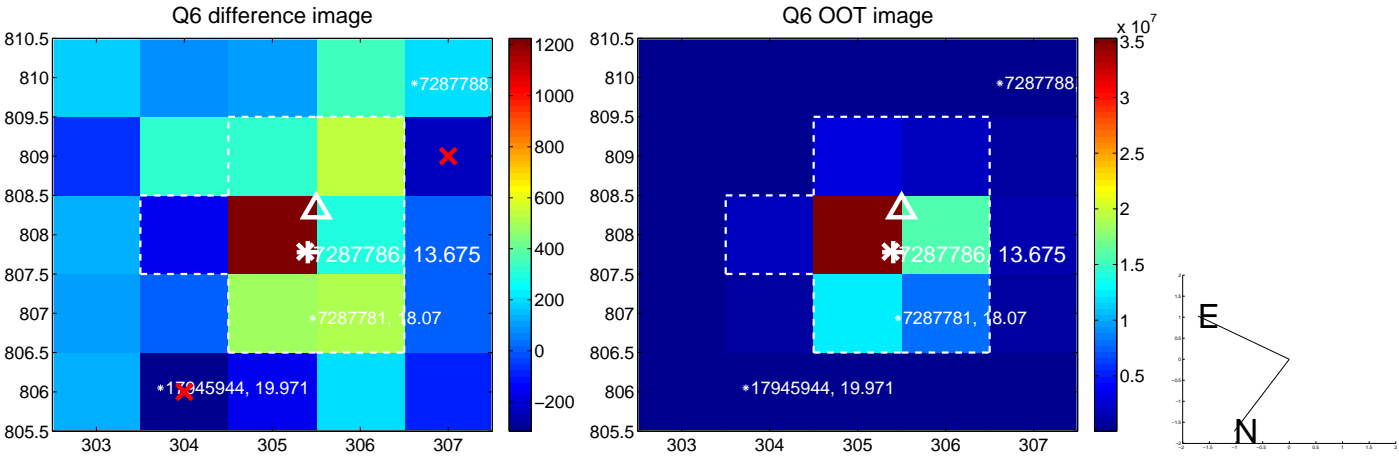
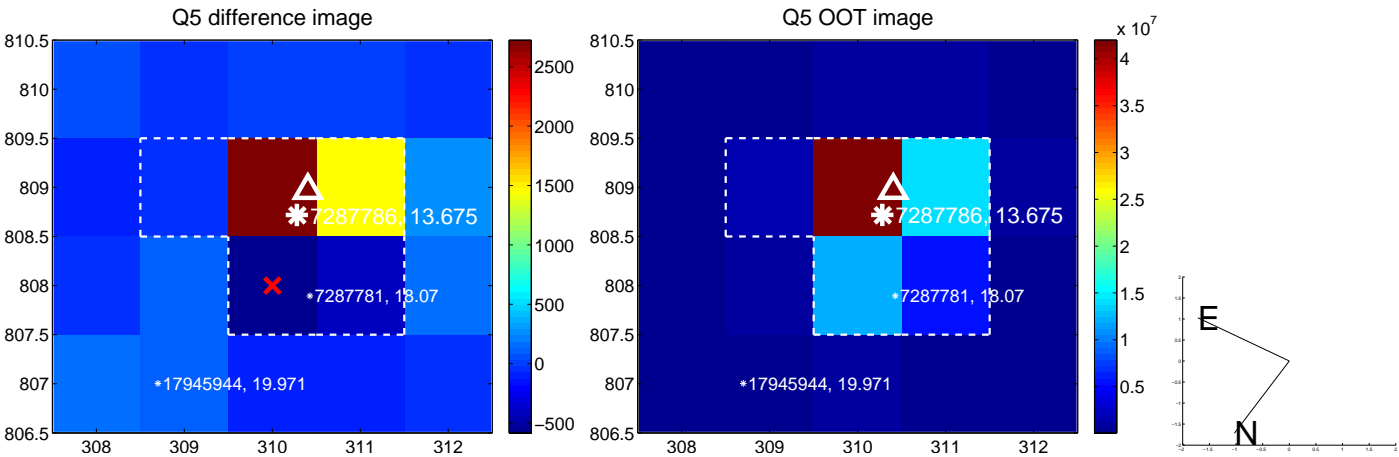


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

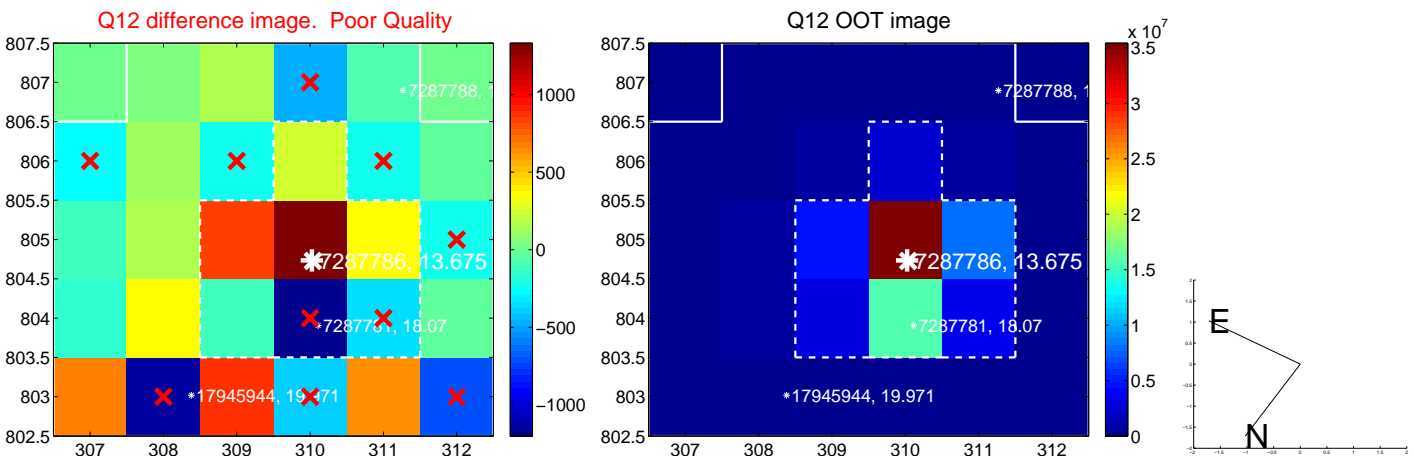
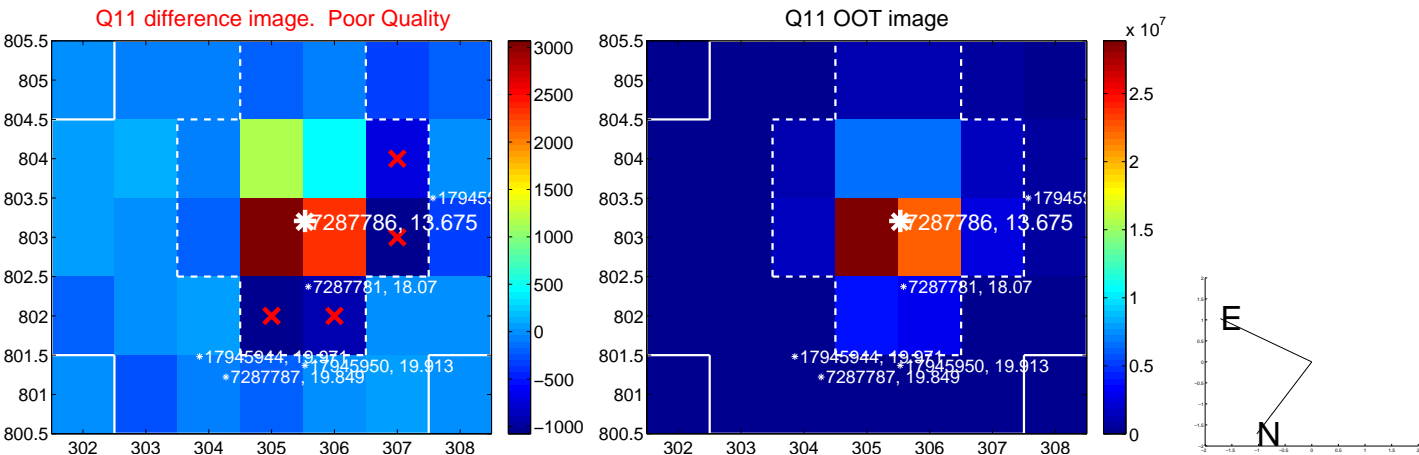
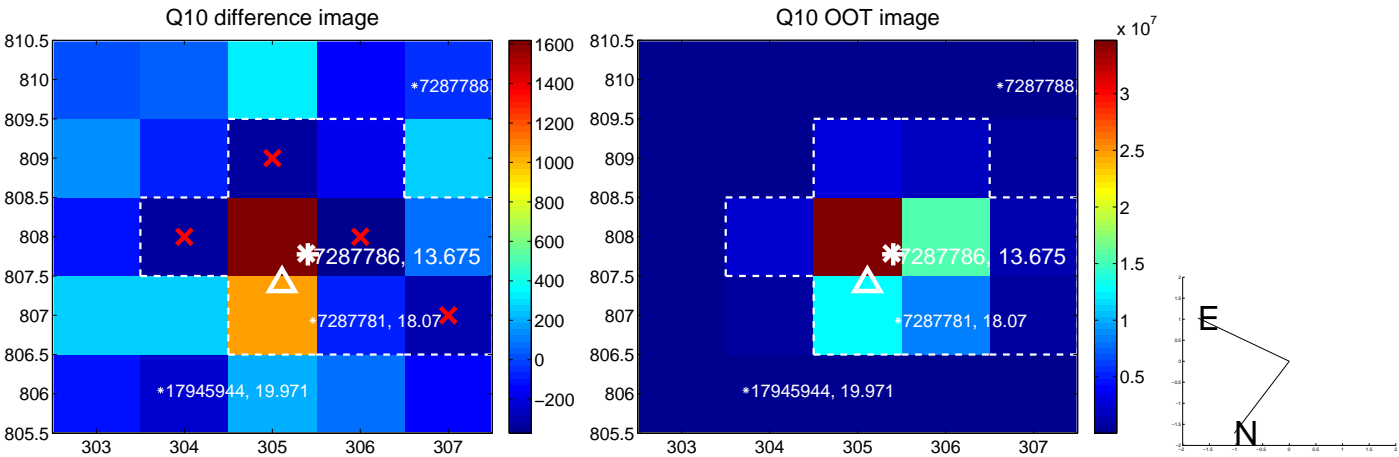
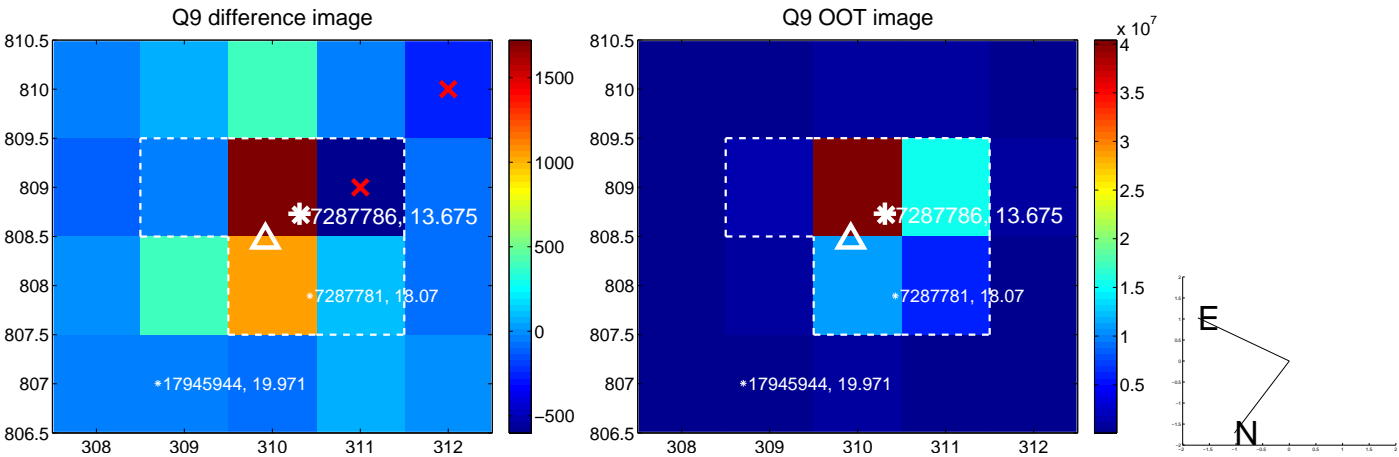
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



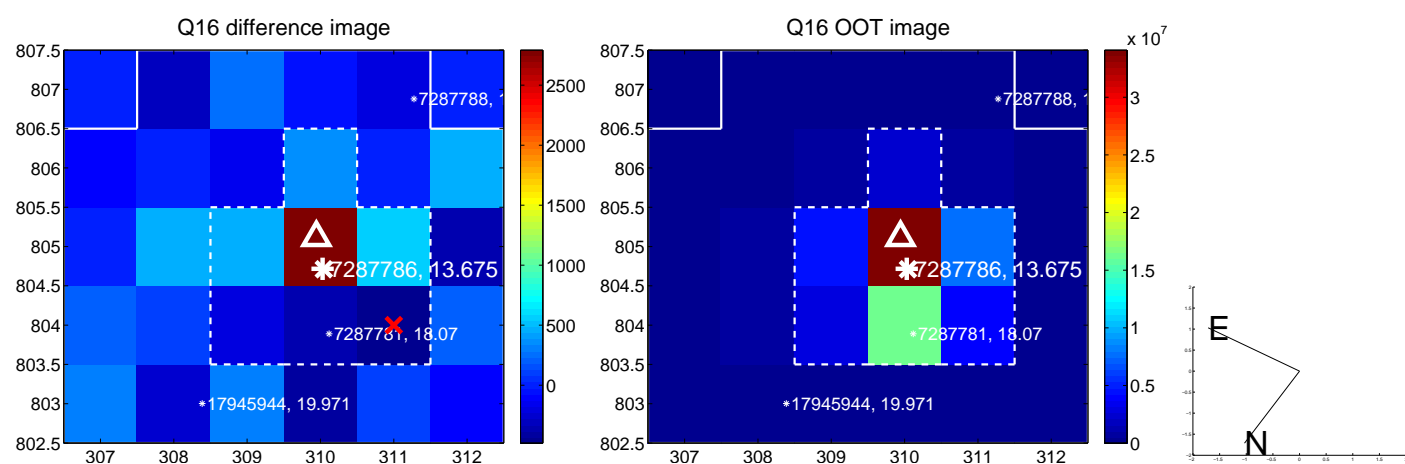
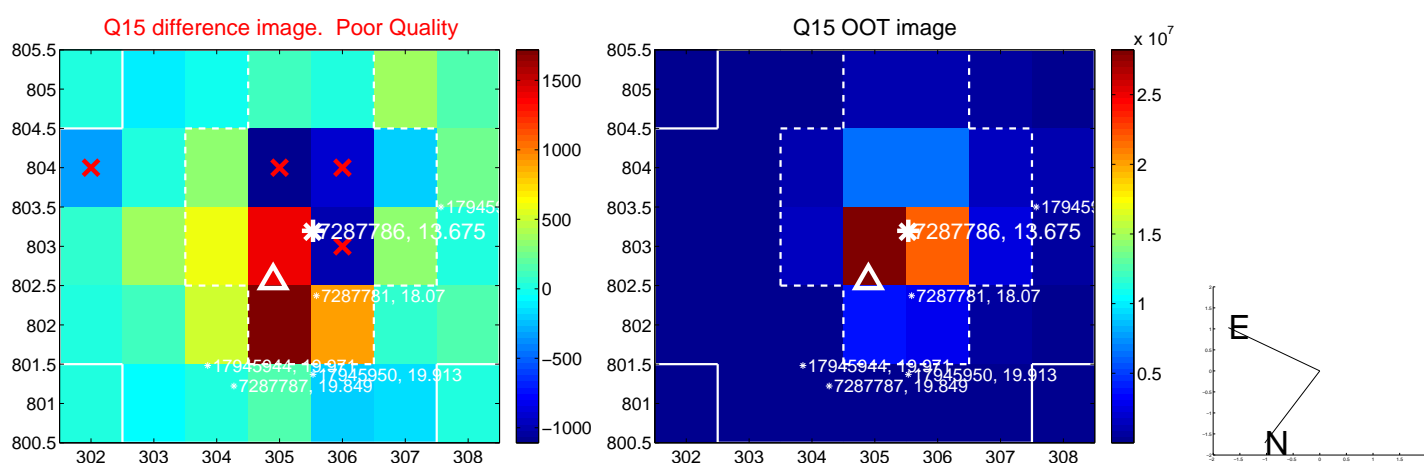
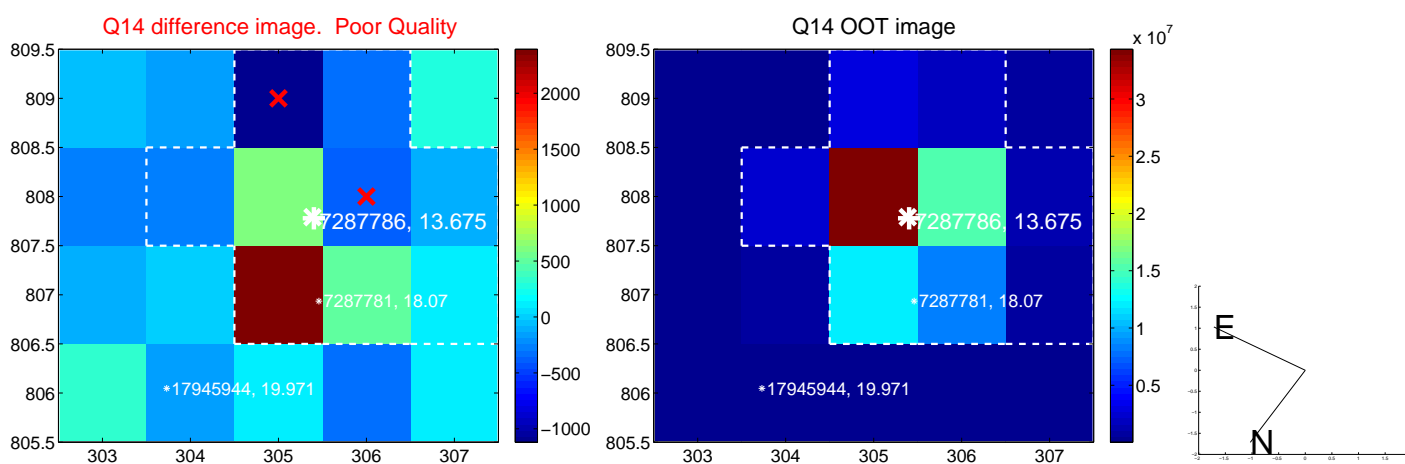
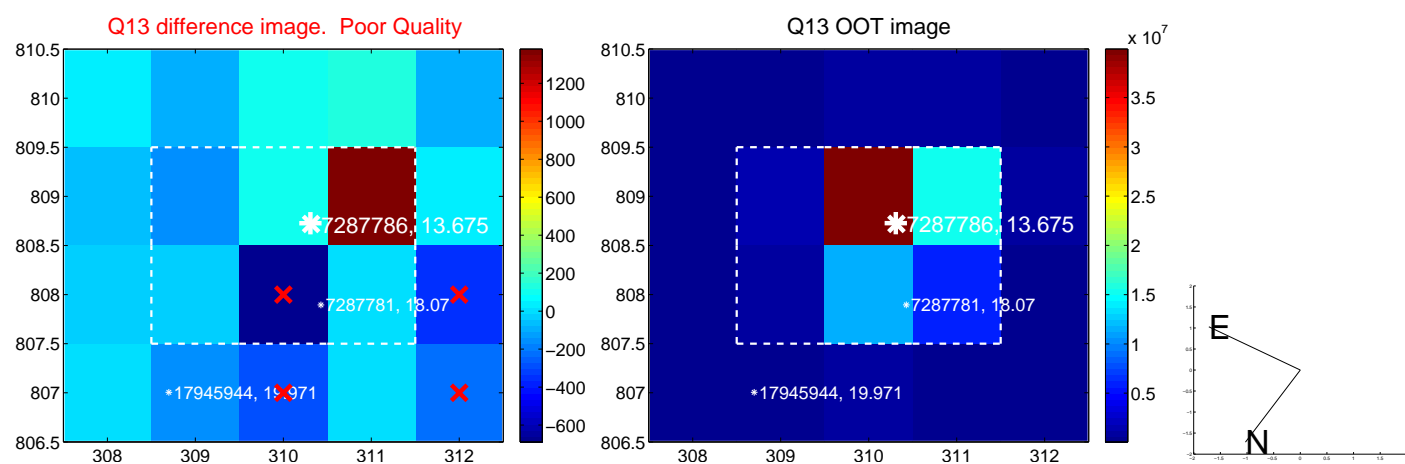
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



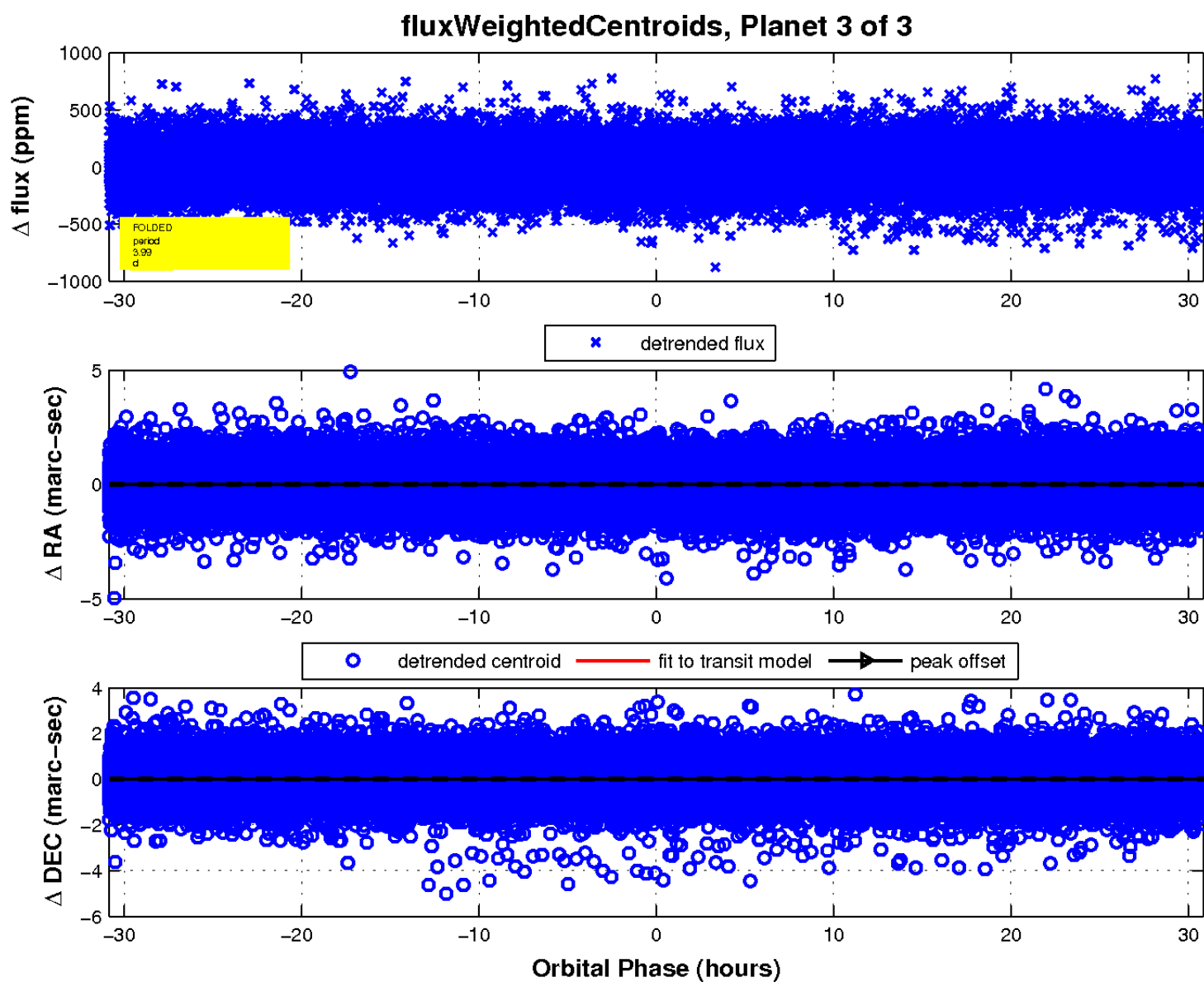
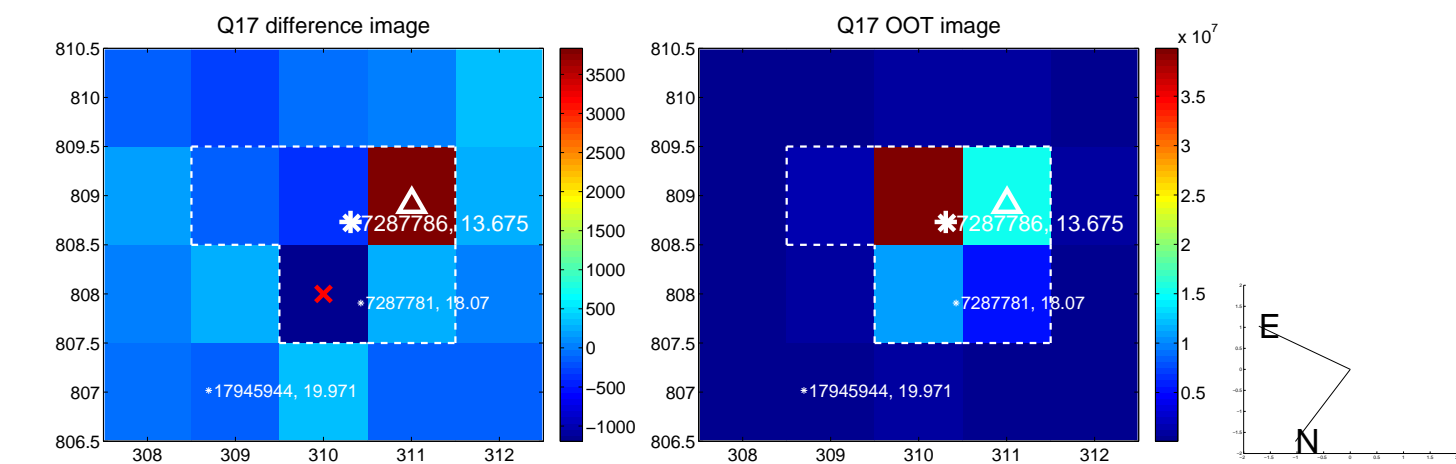
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; Δ : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

