

KIC 007294598

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})
007294598-01	OBS	No	0.690626	131.514490	101.4	1.795	12.3	6.8	1.50	6961	1.74	16264.09
007294598-02	OBS	No	1.277121	131.928699	239.3	9.869	10.6	13.1	1.50	6961	2.36	7165.46
007294598-03	OBS	No	4.029502	133.129746	2468.7	0.946	15.5	18.4	1.50	6961	9.52	1548.41
007294598-04	OBS	No	3.321490	131.884438	865.3	3.716	8.9	11.6	1.50	6961	5.14	2003.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007294598-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT
007294598-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT
007294598-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
007294598-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV

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

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

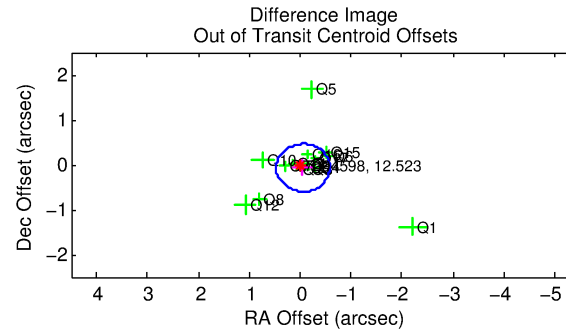
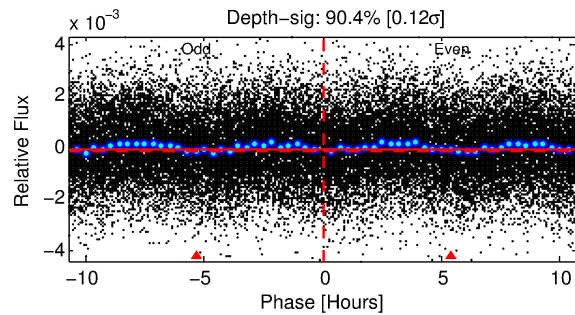
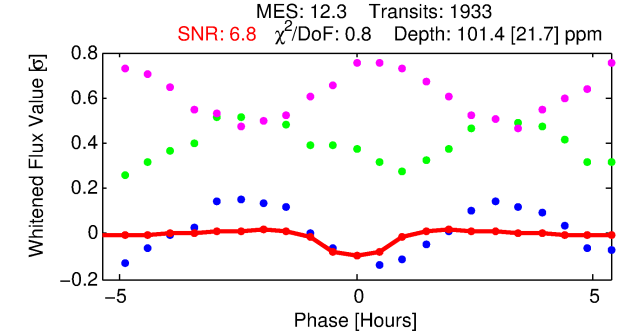
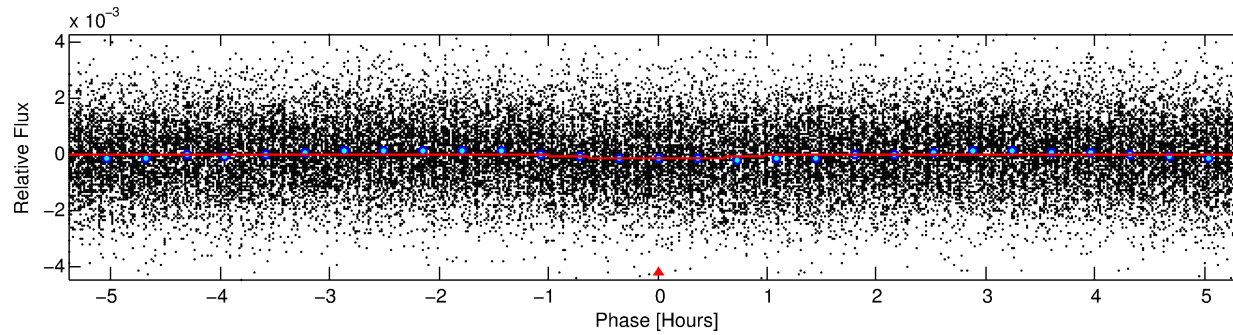
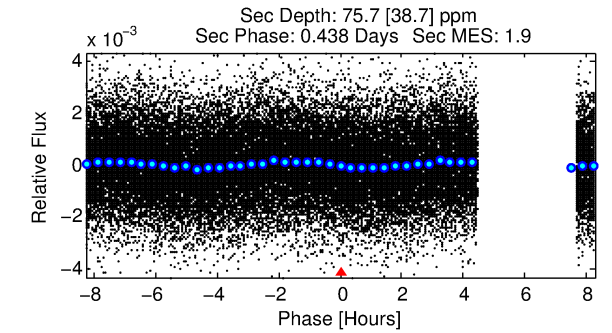
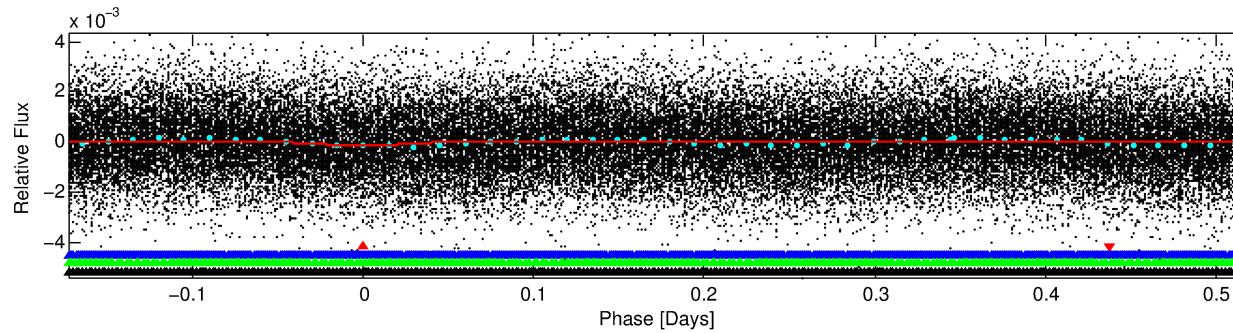
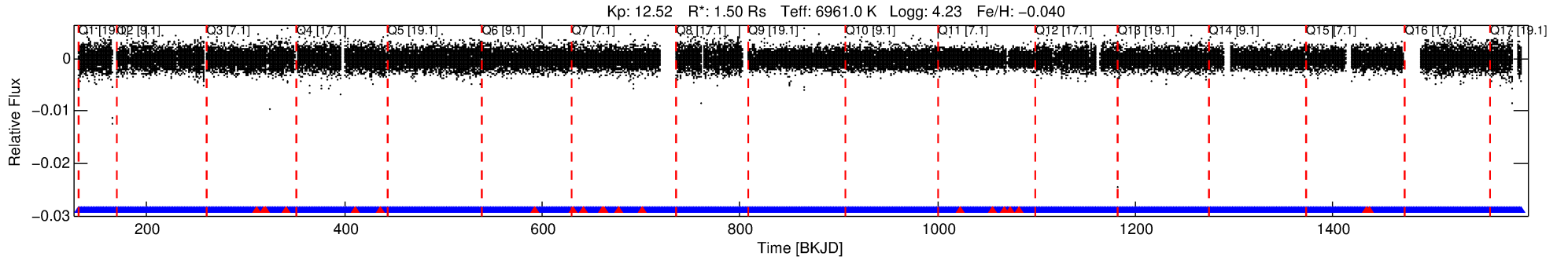
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007294598-01

No Significant Match Found

DV One-Page Summary

KIC: 7294598 Candidate: 1 of 4 Period: 0.691 d



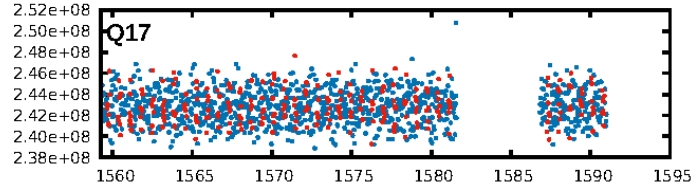
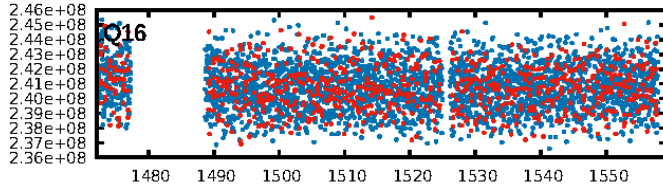
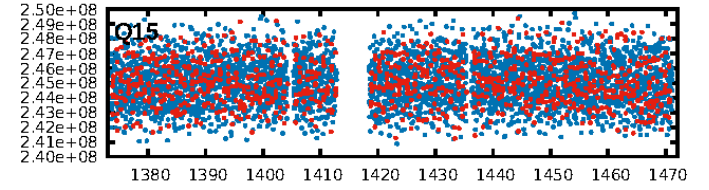
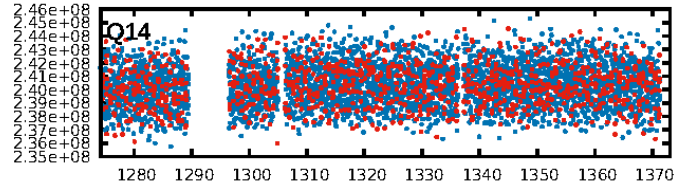
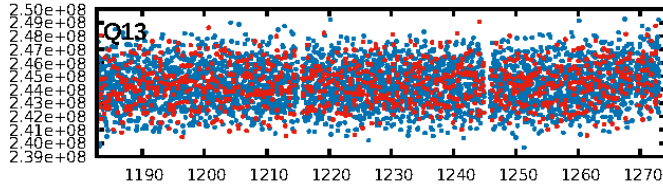
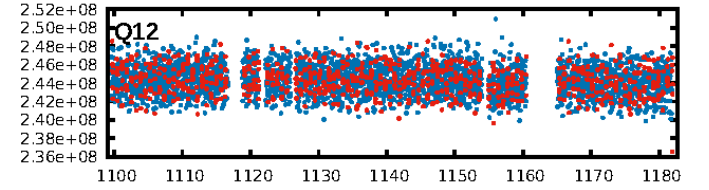
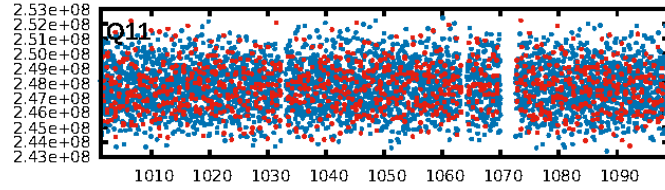
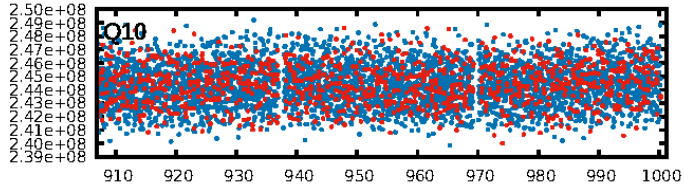
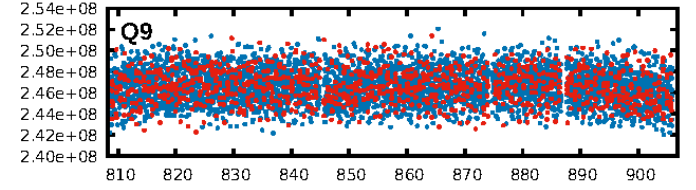
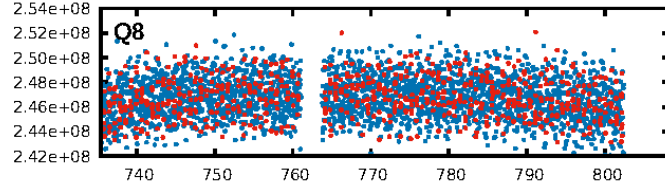
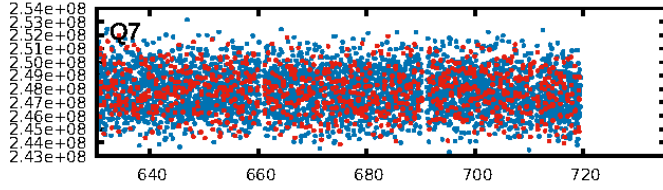
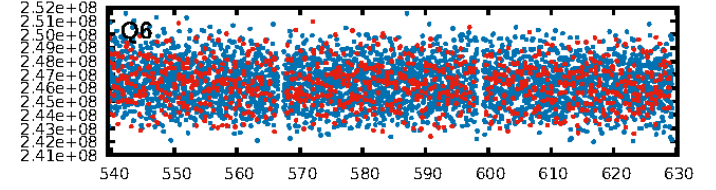
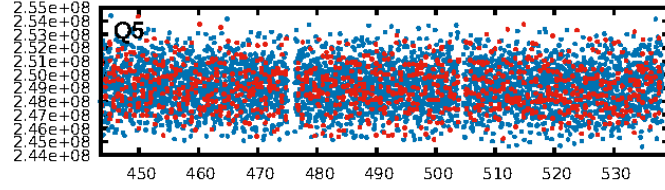
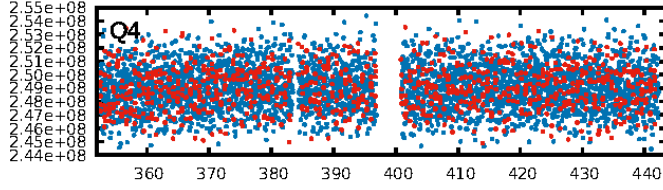
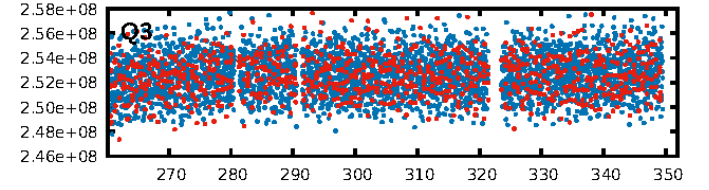
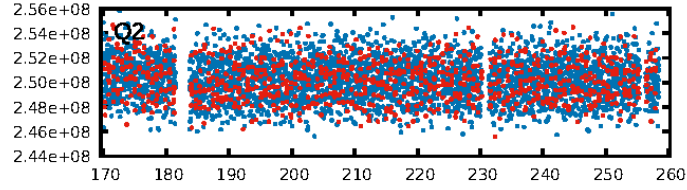
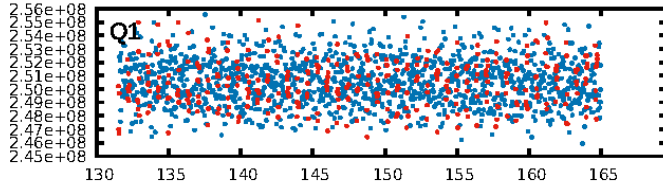
DV Fit Results:

Period = 0.69063 [0.00002] d
Epoch = 131.5145 [0.0037] BKJD
Rp/R* = 0.0106 [0.0096]
a/R* = 1.74 [6.38]
b = 0.88 [1.46]
Seff = 16264.09 [6726.56]
Teq = 2880 [298] K
Rp = 1.74 [1.67] Re
a = 0.0171 [0.0046] AU
Ag = 4.04 [7.76] [0.39σ]
Teffp = 6312 [2978] K [1.15σ]

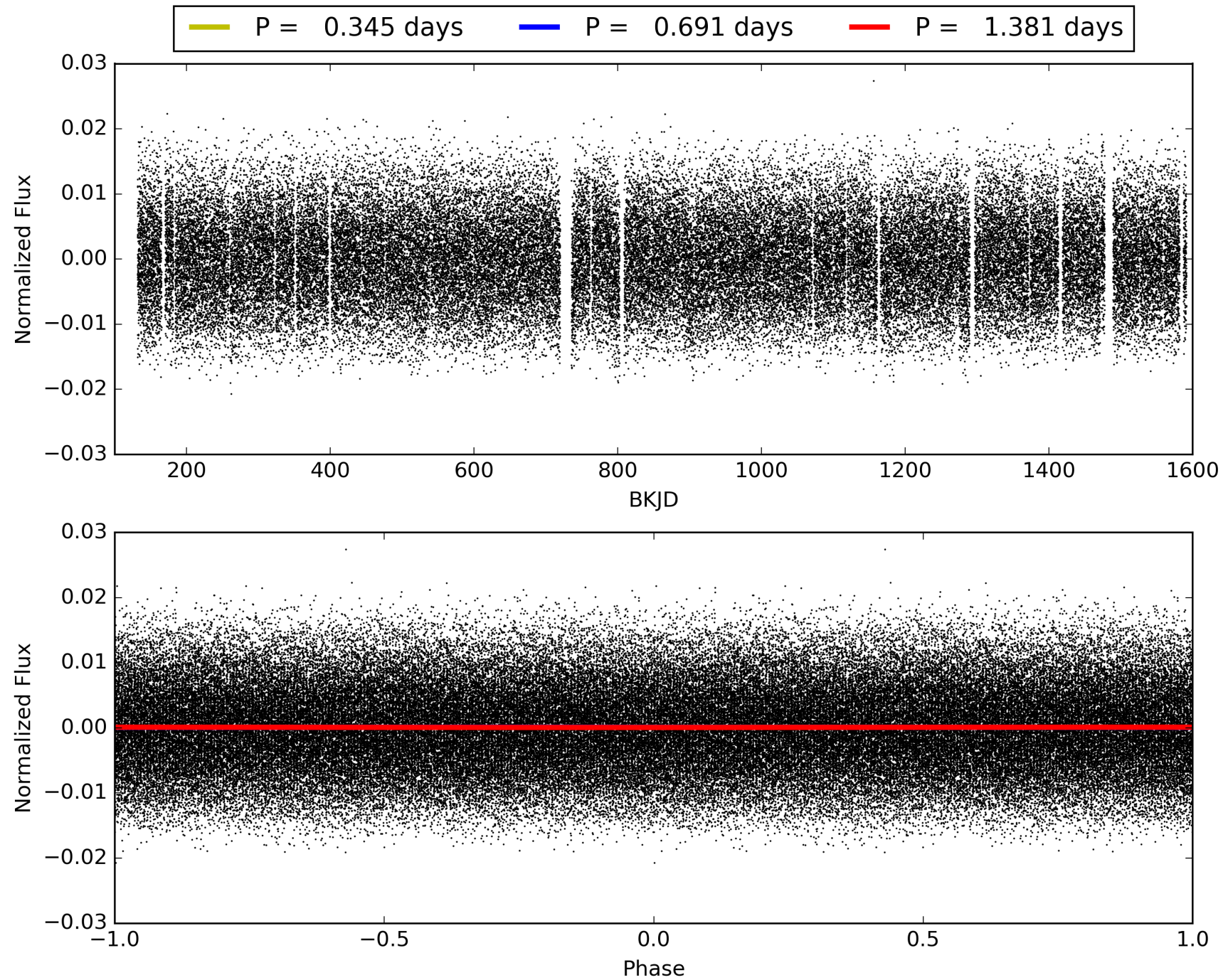
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 83.9% [1.40σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [1824/1846]
GhostDiagnostic-chr: 1.994
Centroid-sig: 6.0%
Centroid-so: 0.237 arcsec [1.70σ]
OotOffset-rm: 0.086 arcsec [0.49σ]
KicOffset-rm: 0.215 arcsec [1.20σ]
OotOffset-st: 3/4/4/5 [16]
KicOffset-st: 3/4/4/5 [16]
DiffImageQuality-fgm: 0.62 [10/16]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 007294598-01, PDC Light Curves

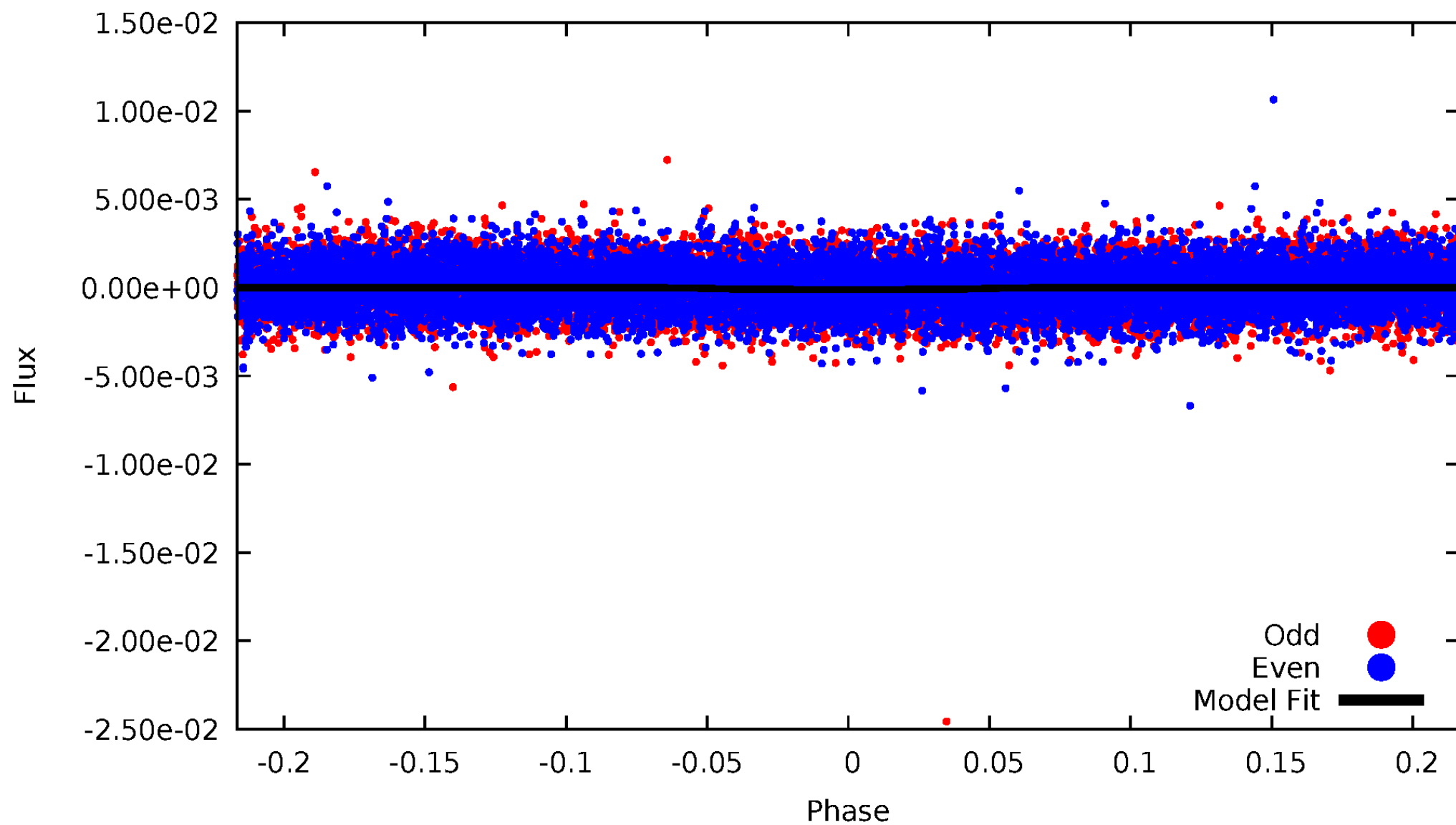


TCE 007294598-01



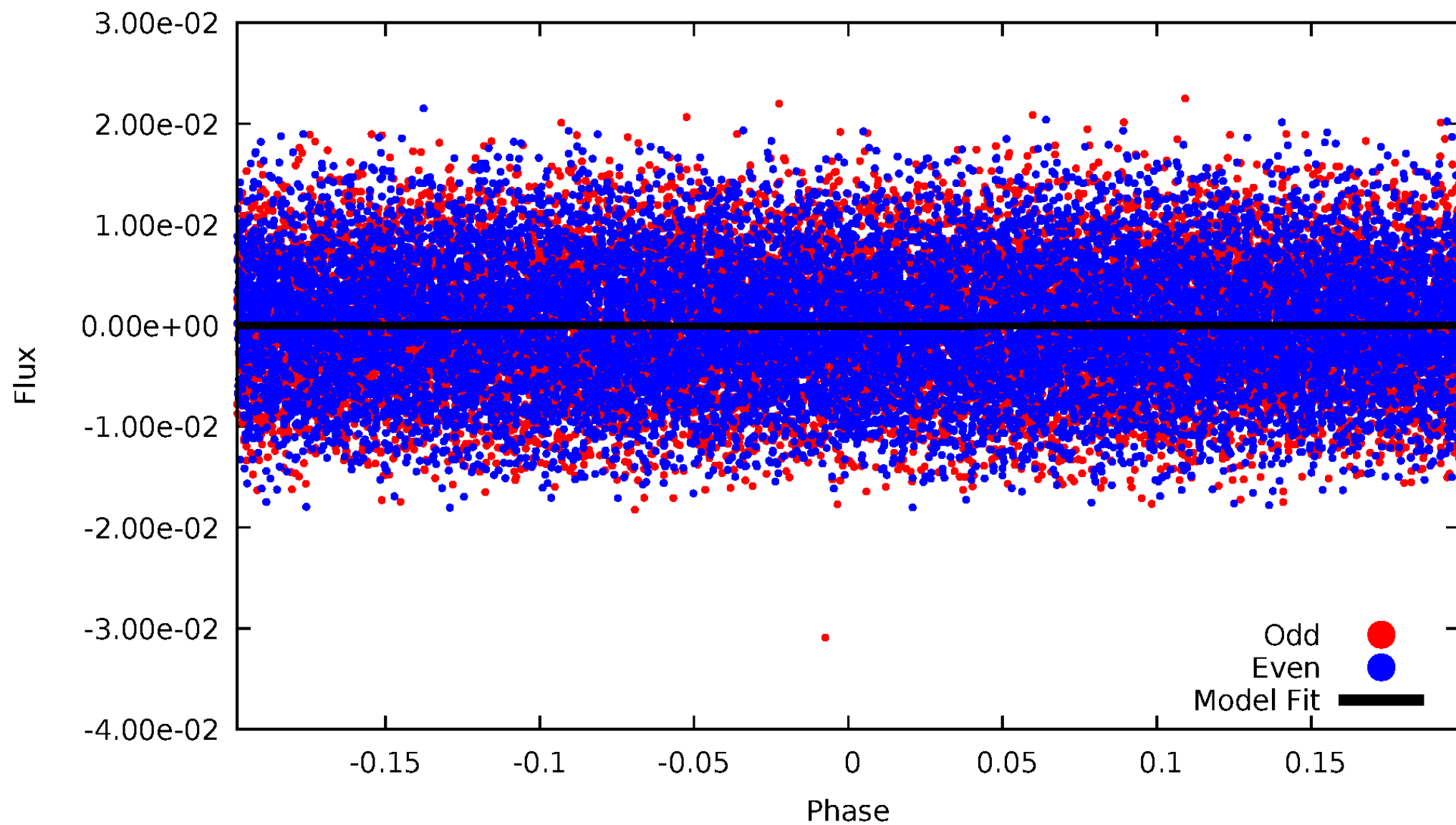
DV Odd/Even

TCE 007294598-01



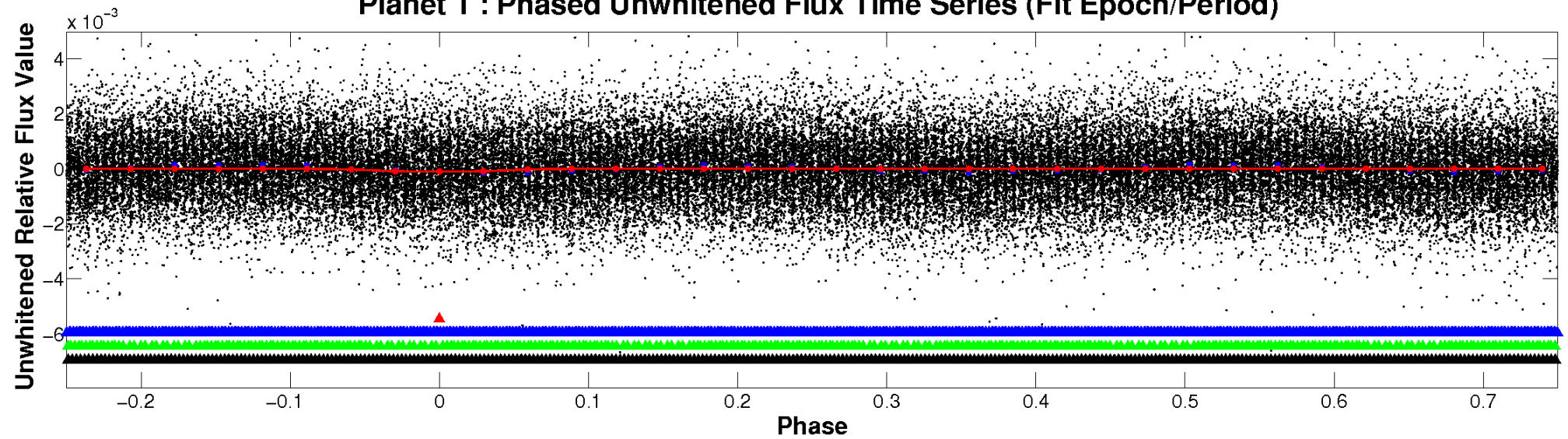
ALT Odd/Even

TCE 007294598-01

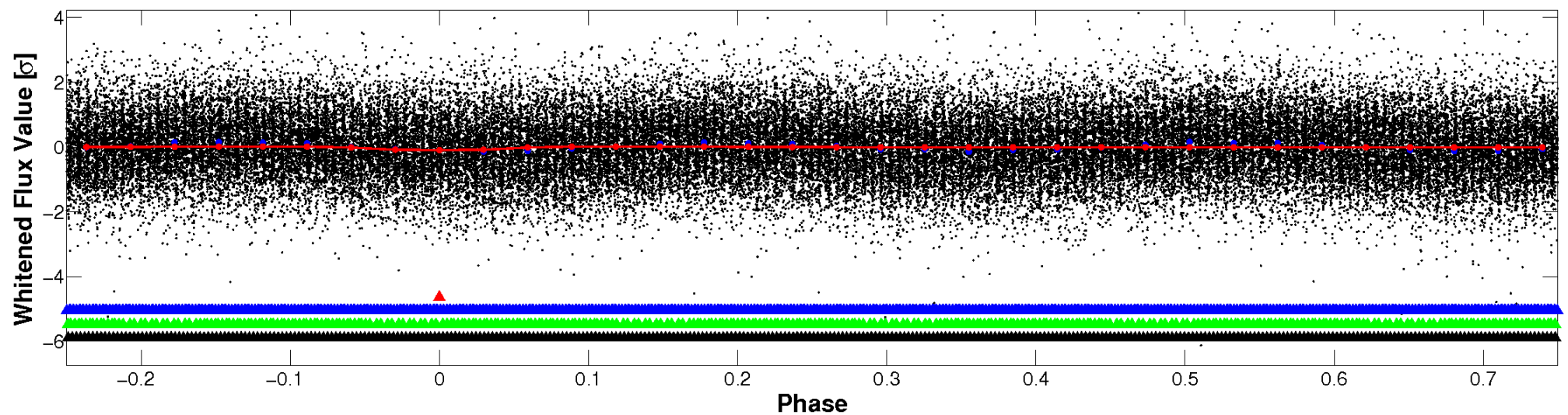


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

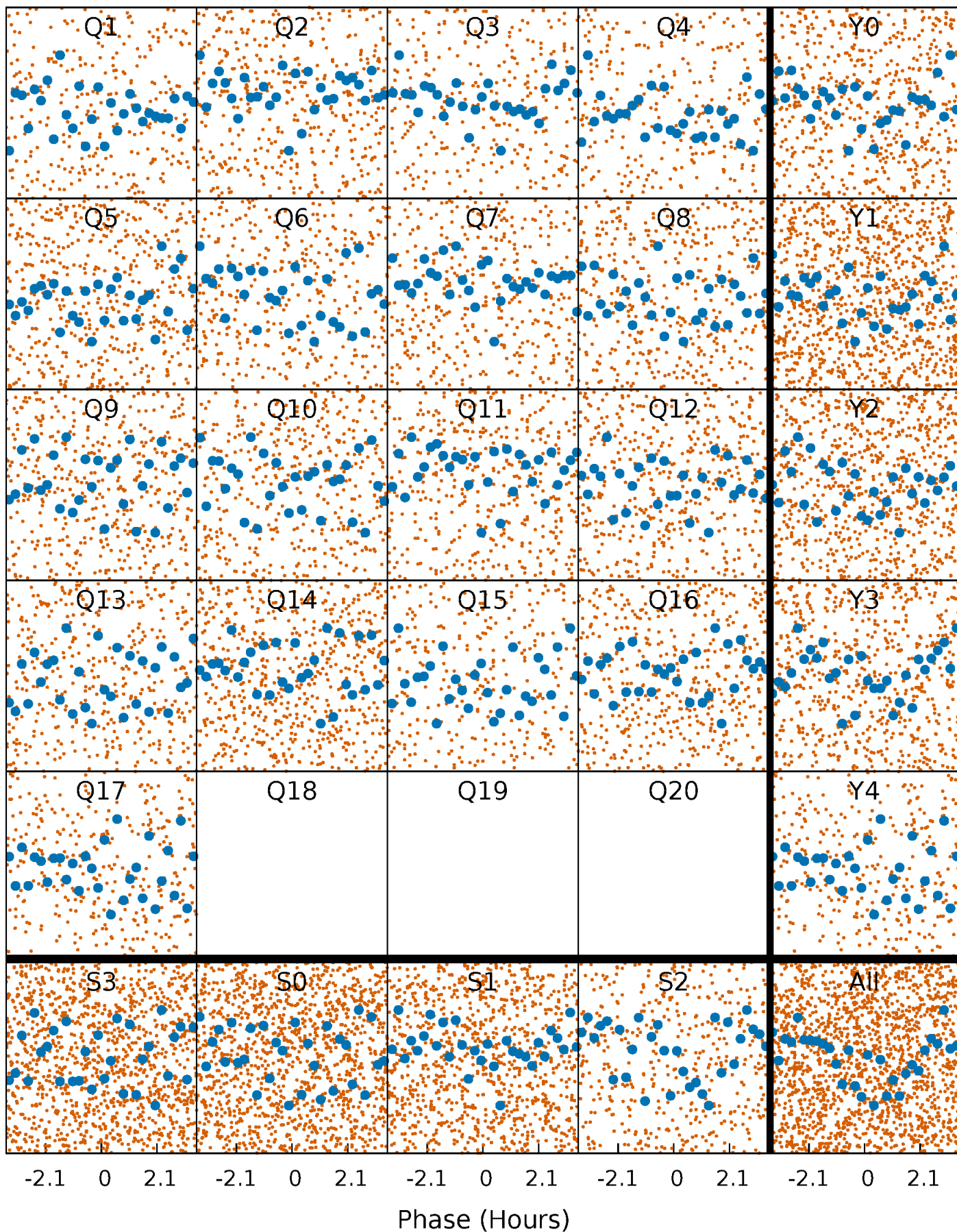


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



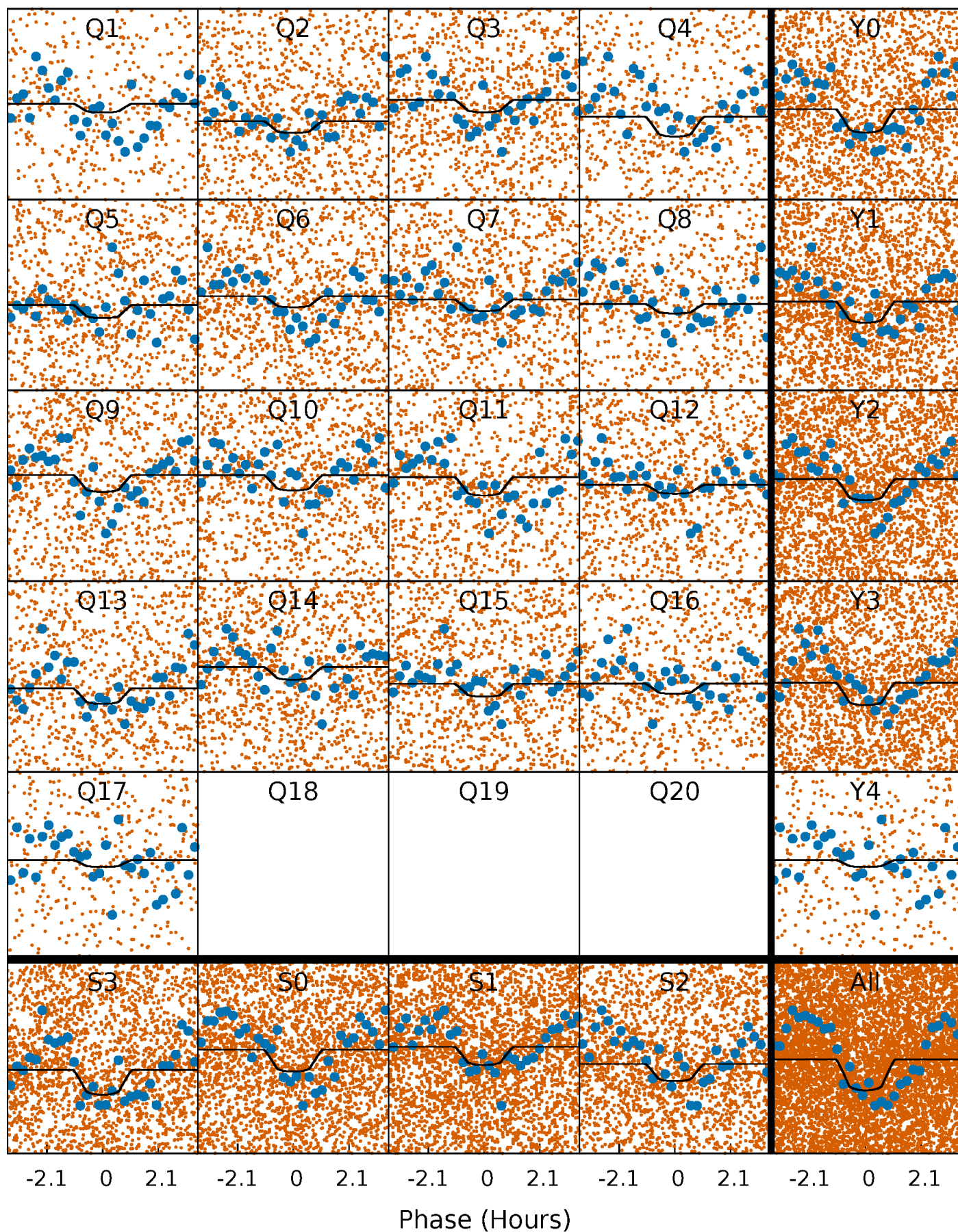
PDC Quarter-Phased Transit Curves

TCE 007294598-01 P= 0.690626 Days $T_0=131.514490$ (BKJD)



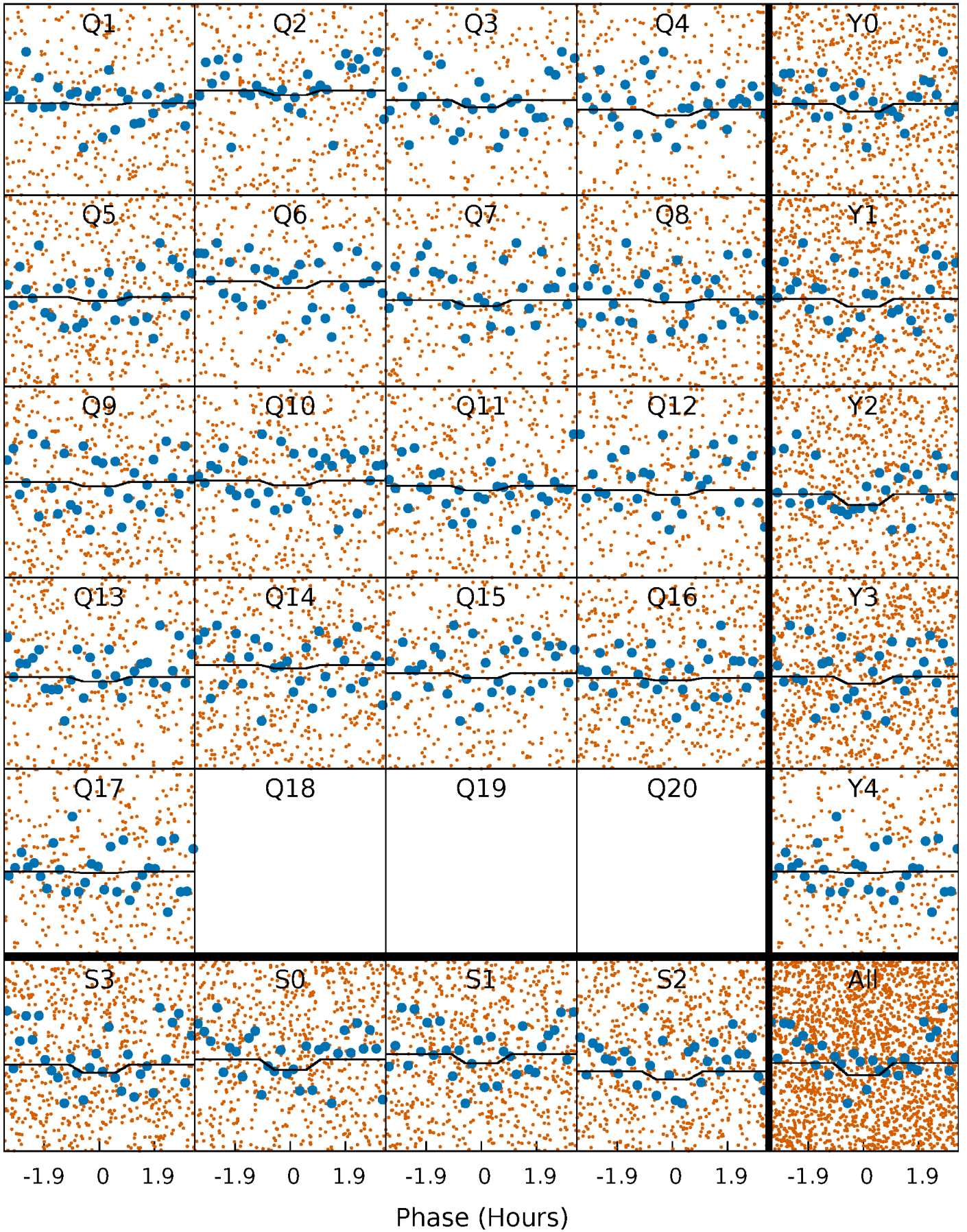
DV Quarter-Phased Transit Curves

TCE 007294598-01 P= 0.690626 Days $T_0=131.514490$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

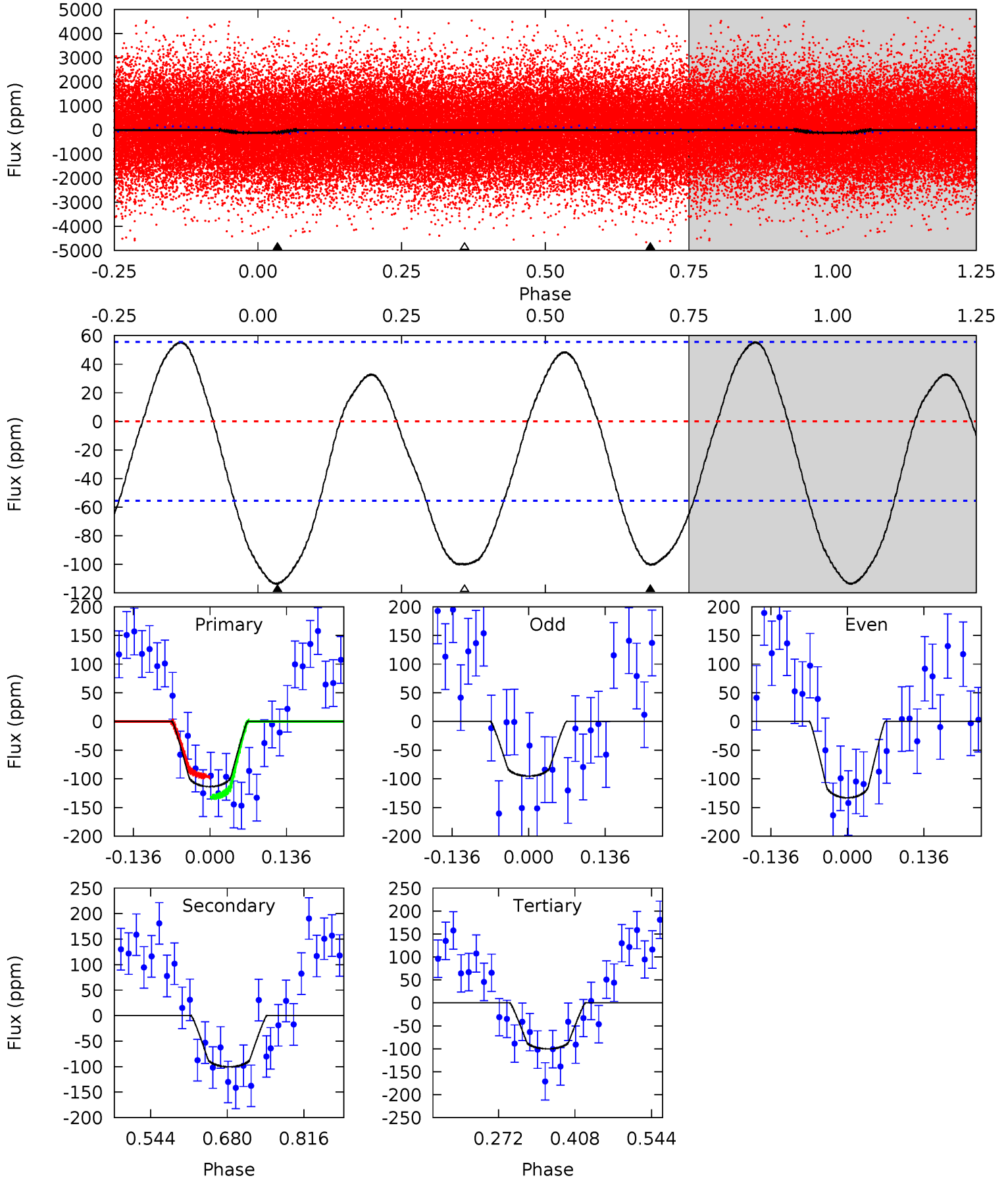
TCE 007294598-01 P= 0.690645 Days $T_0=131.514083$ (BKJD)



DV Model-Shift Uniqueness Test

007294598-01, P = 0.690626 Days, E = 130.823864 Days

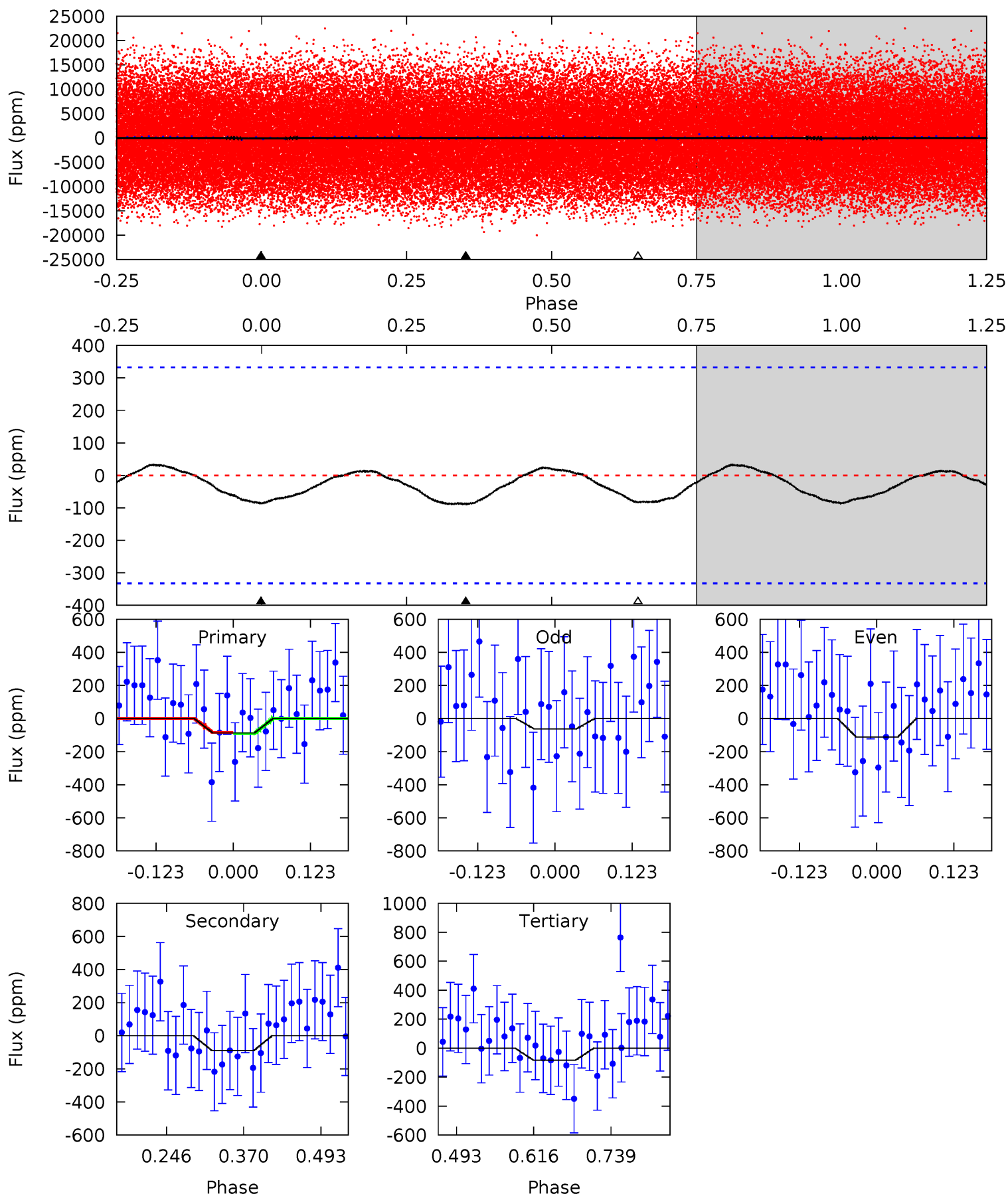
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.21	8.14	8.11	0	4.50	1.49	4.42	1.10	9.21	0.03	8.14	1.54	0.91	0.33	1.46



Alt Model-Shift Uniqueness Test

007294598-01, P = 0.690645 Days, E = 130.823438 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.19	1.22	1.14	0	4.52	1.54	0.50	0.05	1.19	0.08	1.22	0.33	0.75	0.27	0.04



Stellar Parameters For KIC 007294598

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6961^{+166}_{-249}	$4.229^{+0.090}_{-0.210}$	$-0.040^{+0.250}_{-0.350}$	$1.503^{+0.487}_{-0.262}$	$1.401^{+0.202}_{-0.202}$	$0.581^{+0.281}_{-0.299}$
	+2%/-4%	+2%/-5%	+625%/-875%	+32%/-17%	+14%/-14%	+48%/-51%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 007294598-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-100 ± 12	$2.11^{+1.54}_{-1.27}$	4074^{+333}_{-223}	6152^{+5176}_{-1622}	$3.717^{+18.241}_{-2.548}$
Alt.	-90 ± 74	$1.95^{+1.60}_{-1.20}$	4097^{+318}_{-252}	5737^{+4597}_{-3538}	$2.887^{+17.298}_{-2.579}$

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 $A_{obs} \gg 1.0$

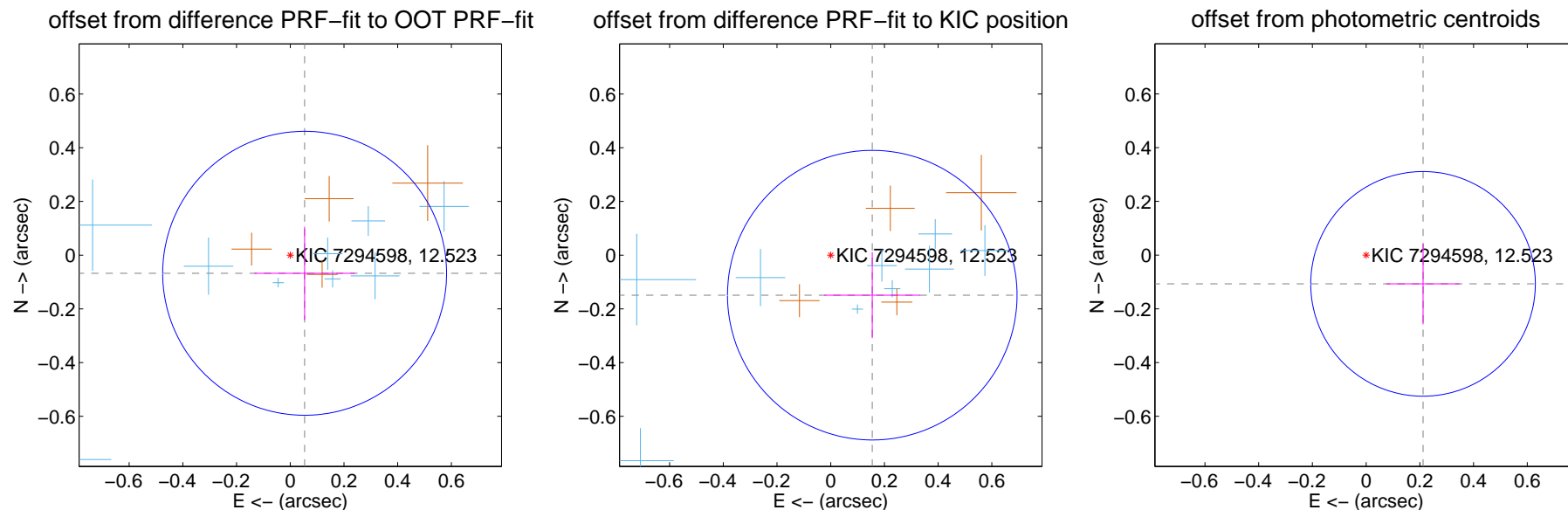
DV Centroid Data

Supplemental centroid analysis for 007294598-01. Kepler magnitude: 12.52. Transit SNR 6.80

There are 10 quarters with good PRF difference image offsets

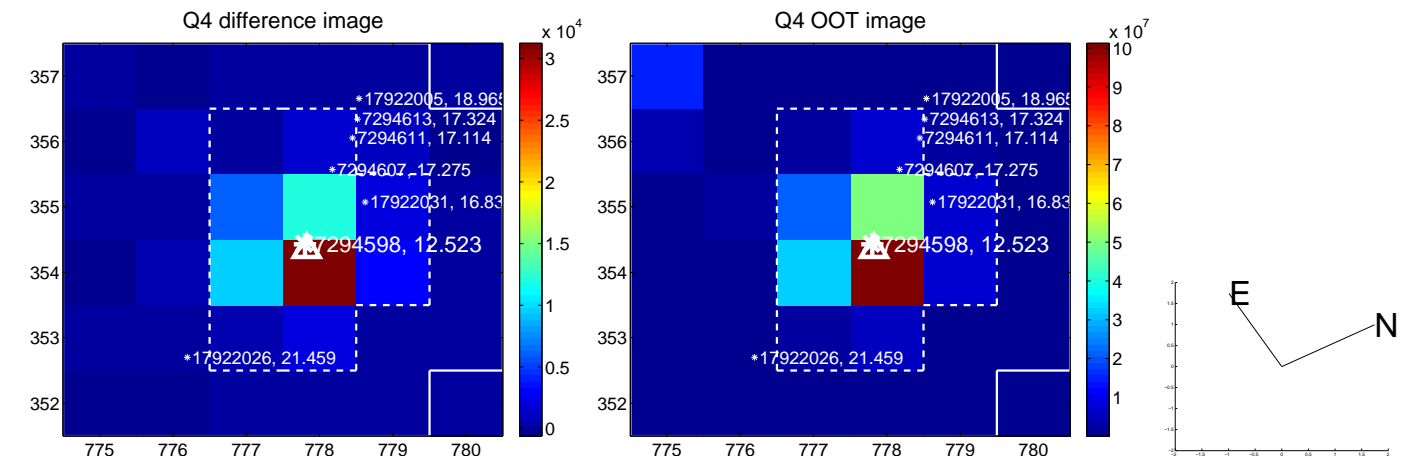
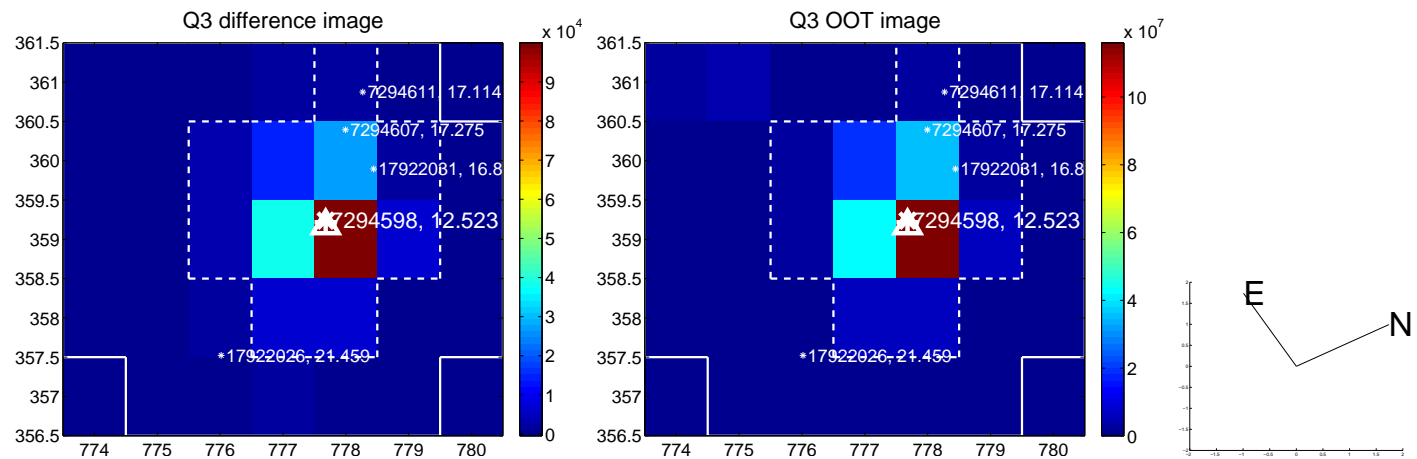
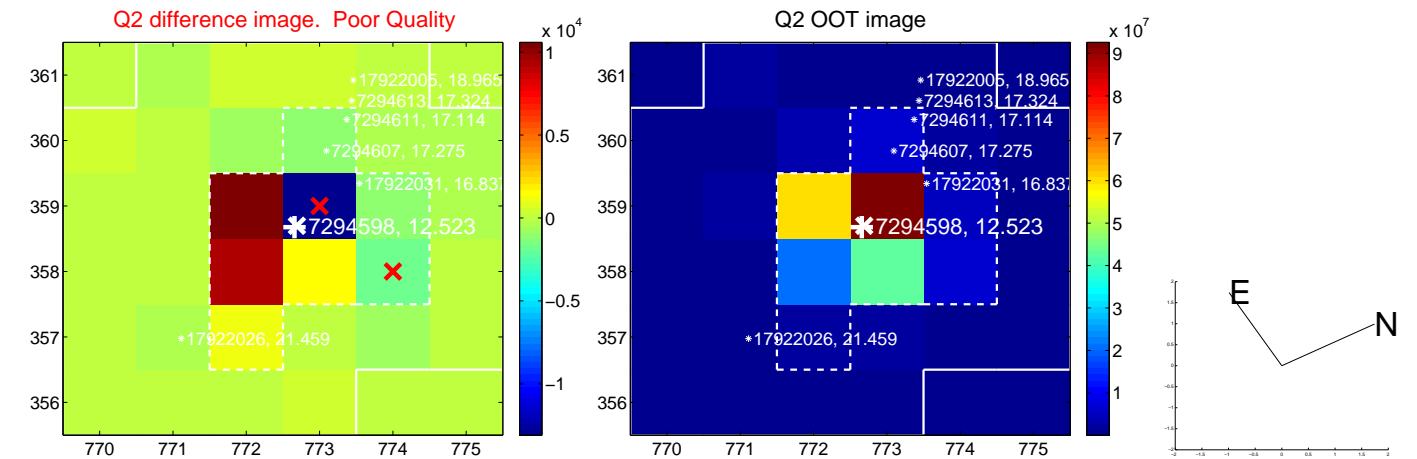
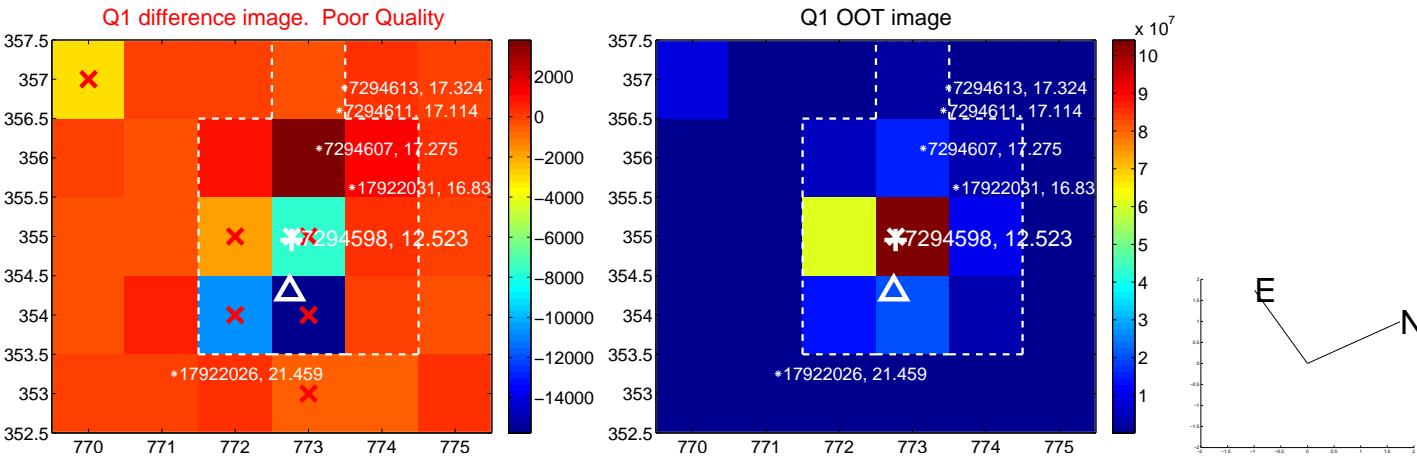
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.086 ± 0.176	0.49	-0.054 ± 0.188	-0.068 ± 0.174
PRF-fit source offset from KIC position	0.215 ± 0.180	1.20	-0.155 ± 0.179	-0.149 ± 0.160
photometric centroid source offset	0.24 ± 0.14	1.70	-0.21 ± 0.14	-0.11 ± 0.15

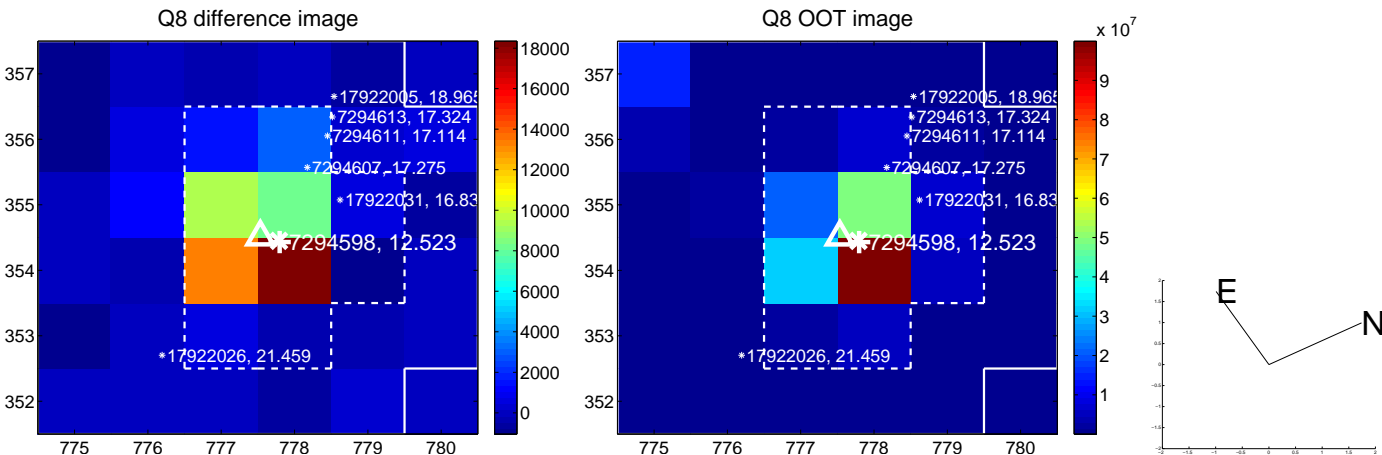
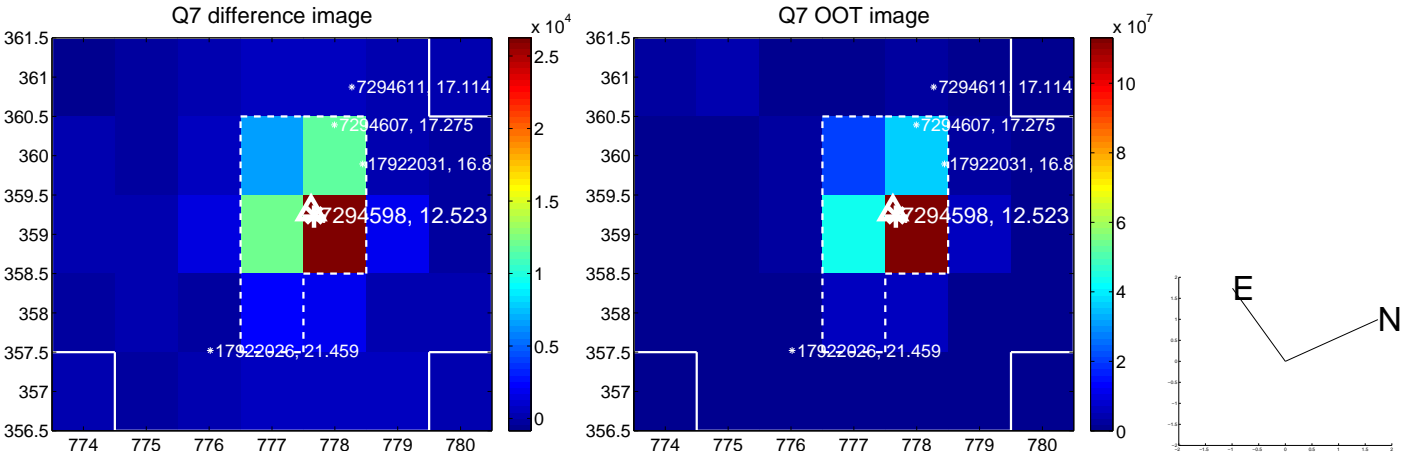
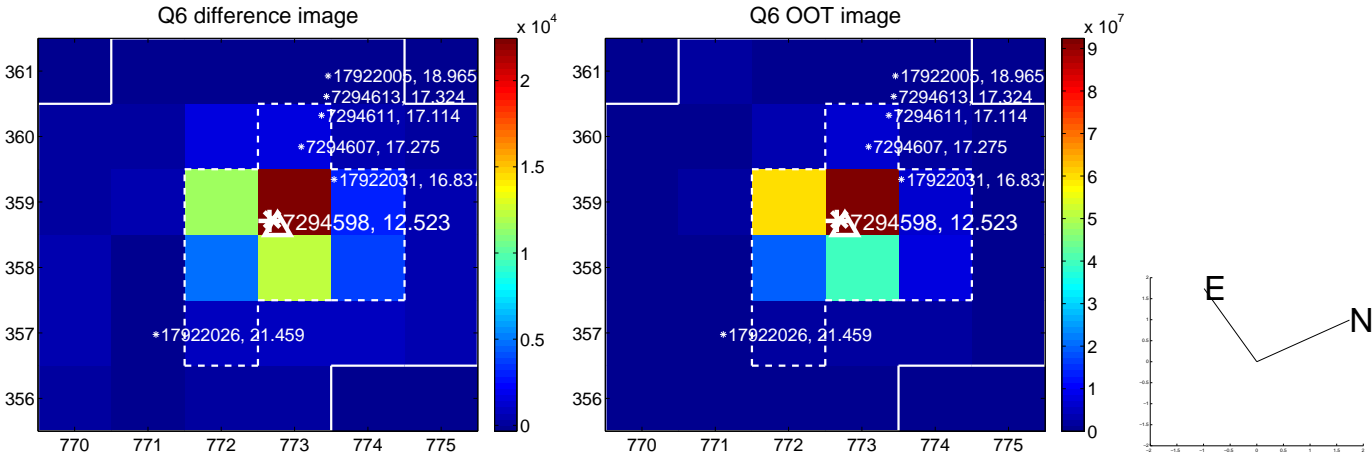
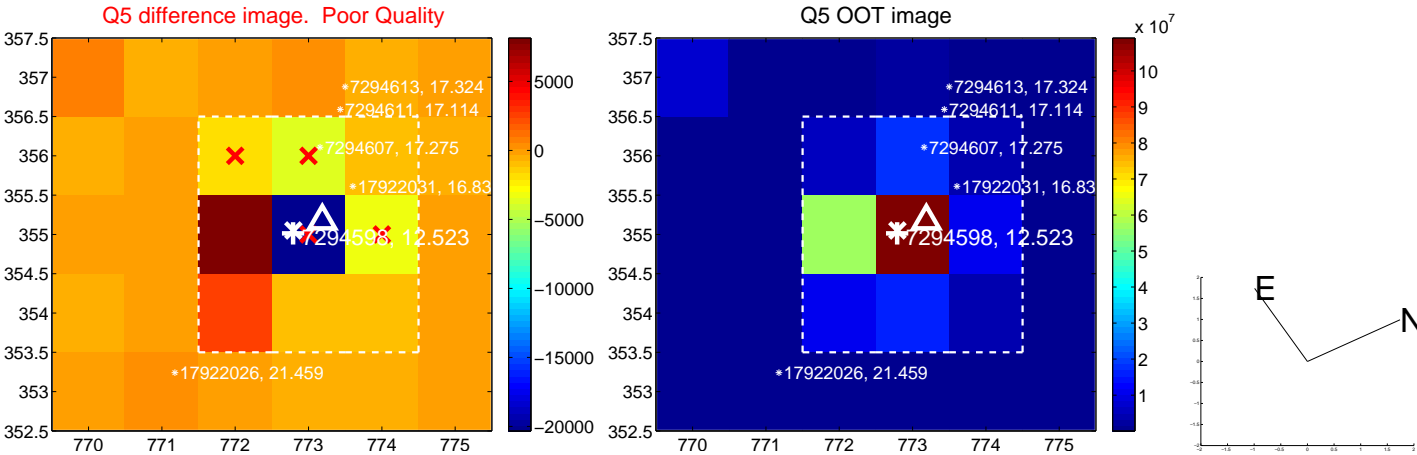


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

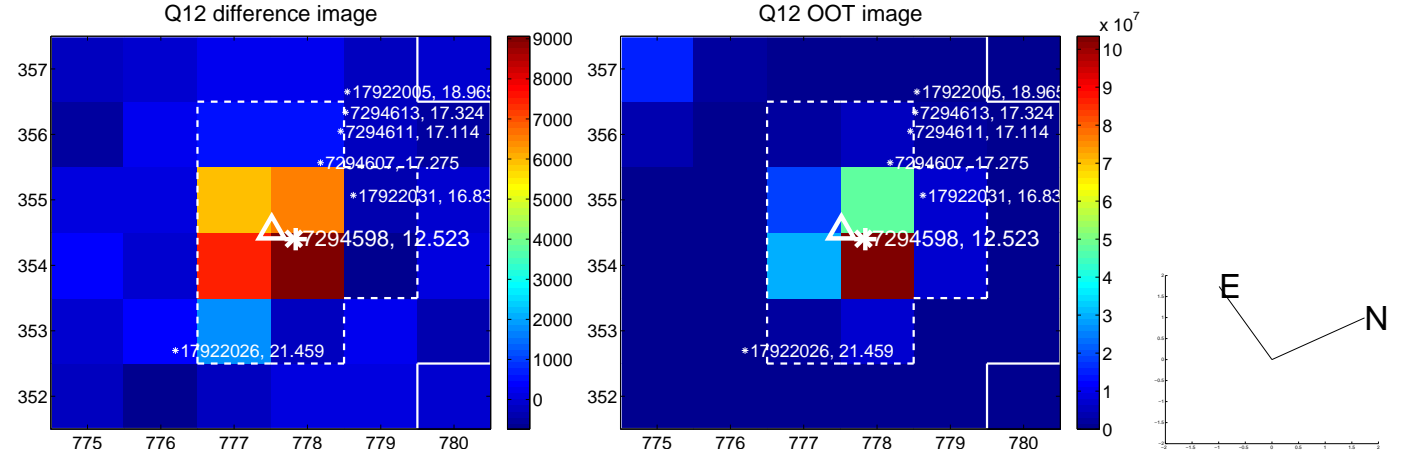
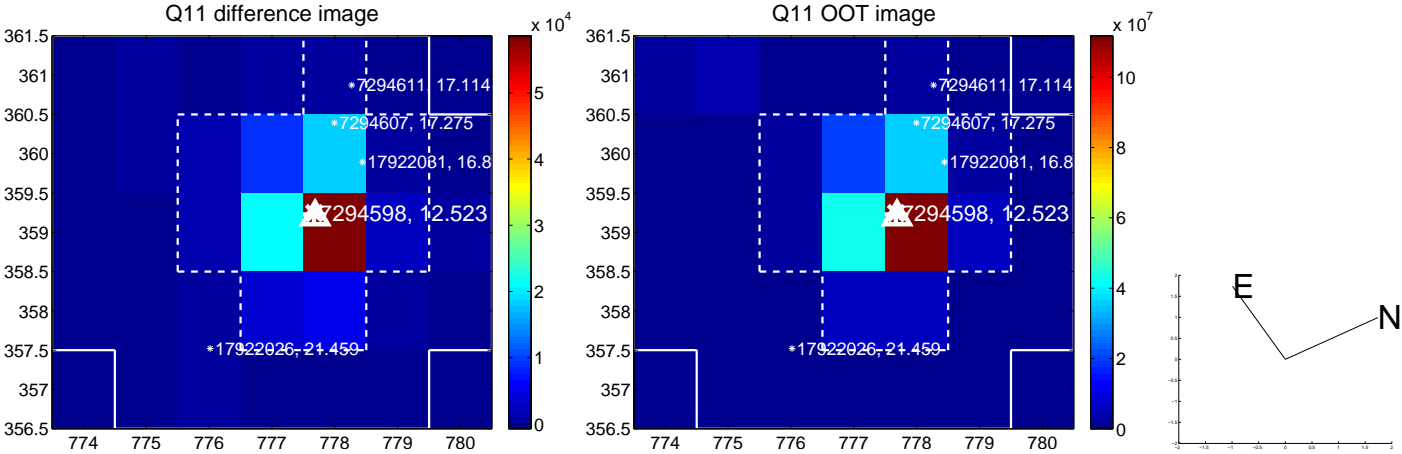
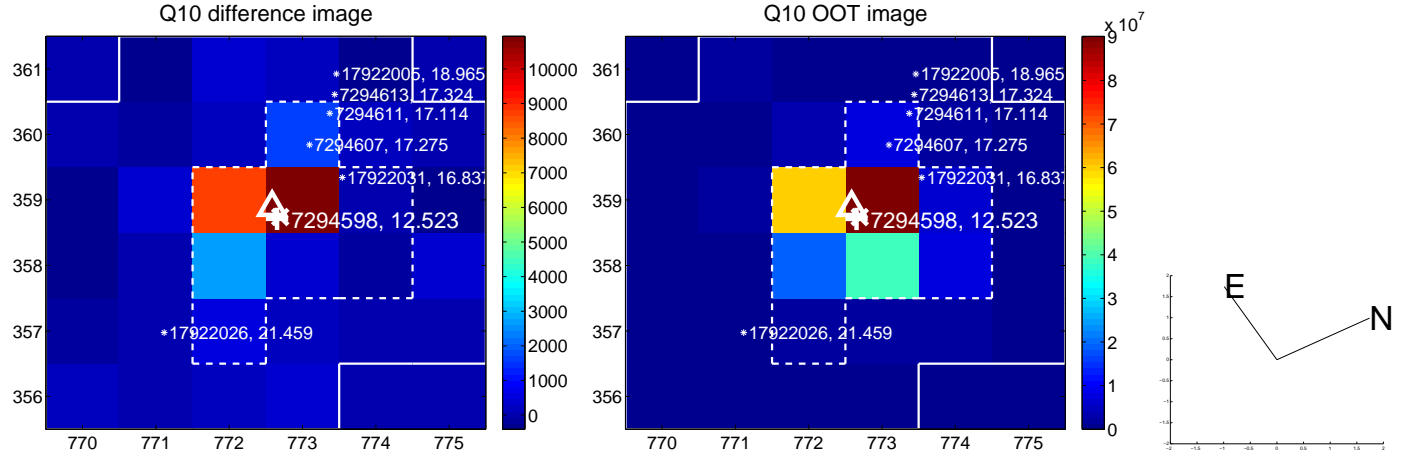
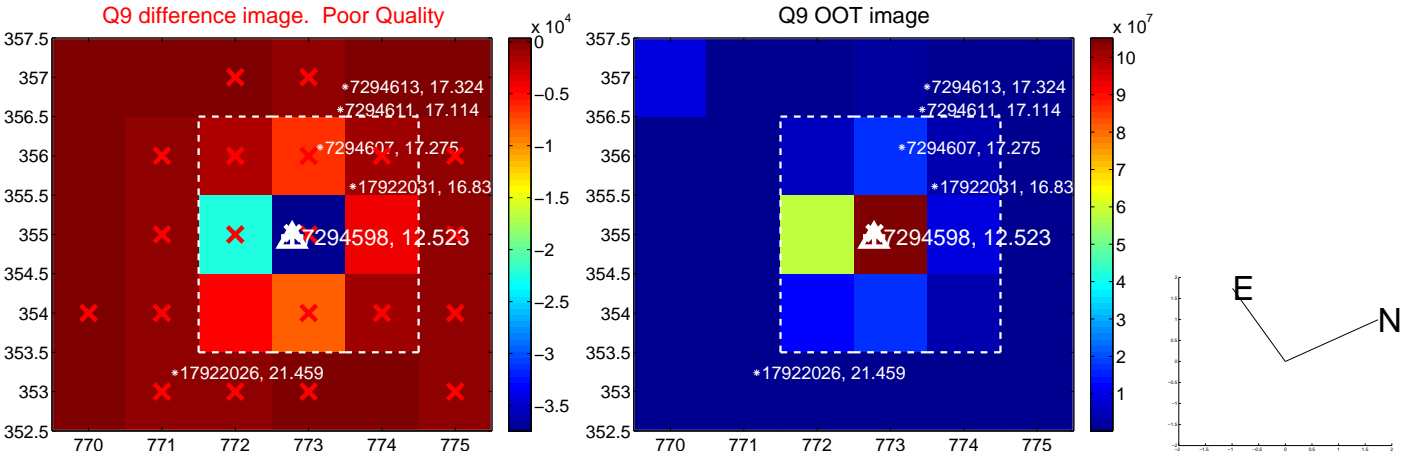
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



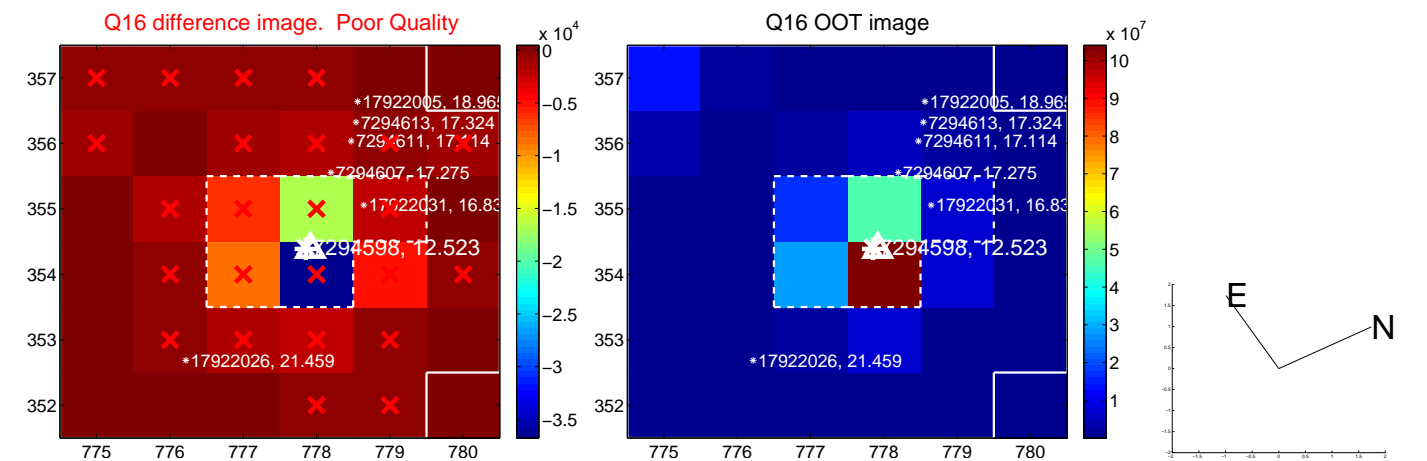
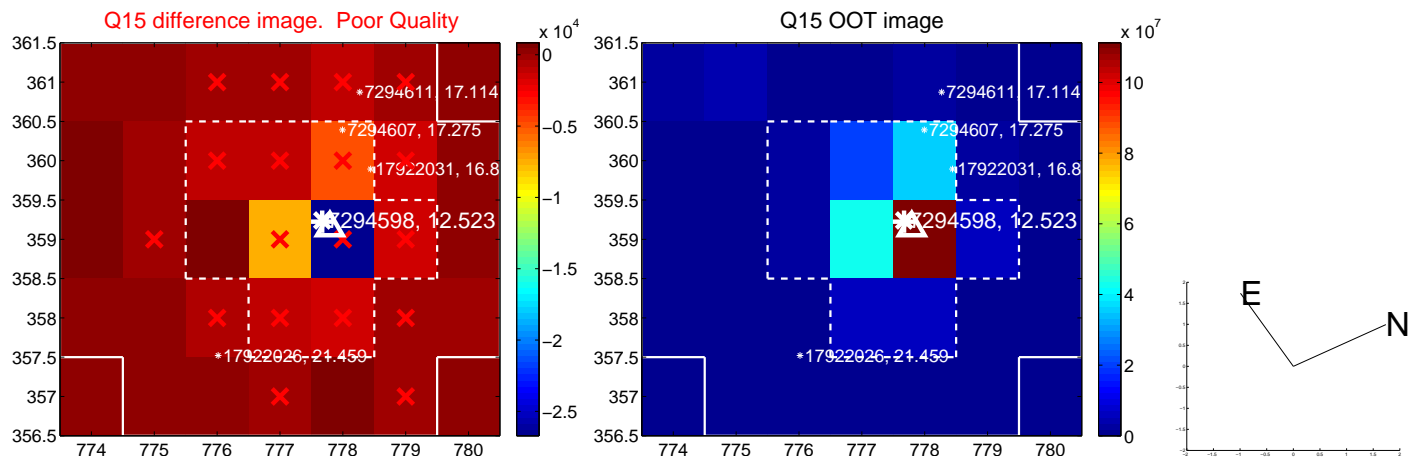
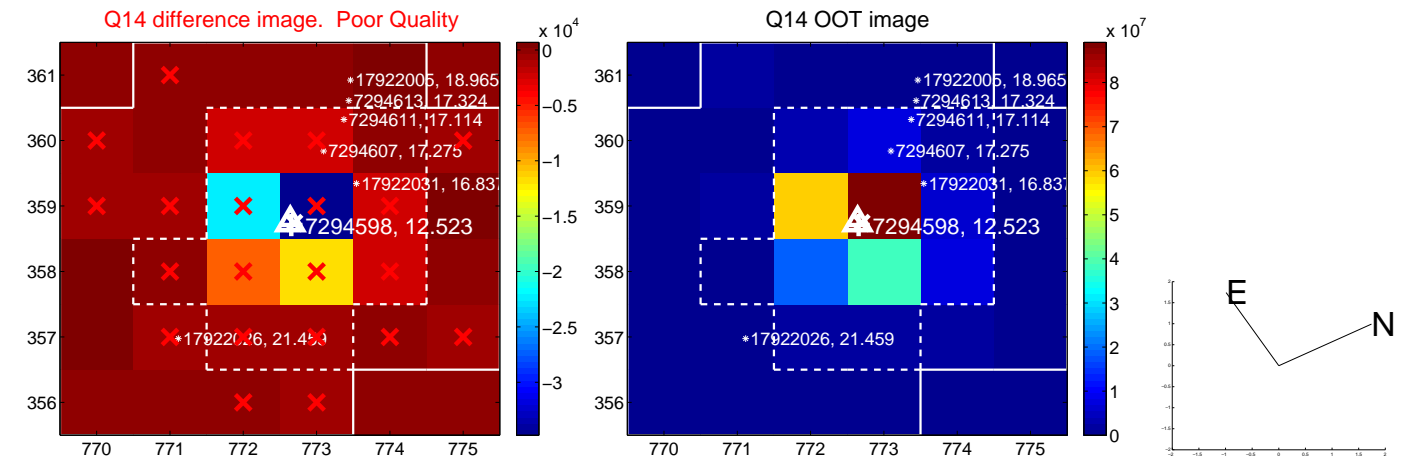
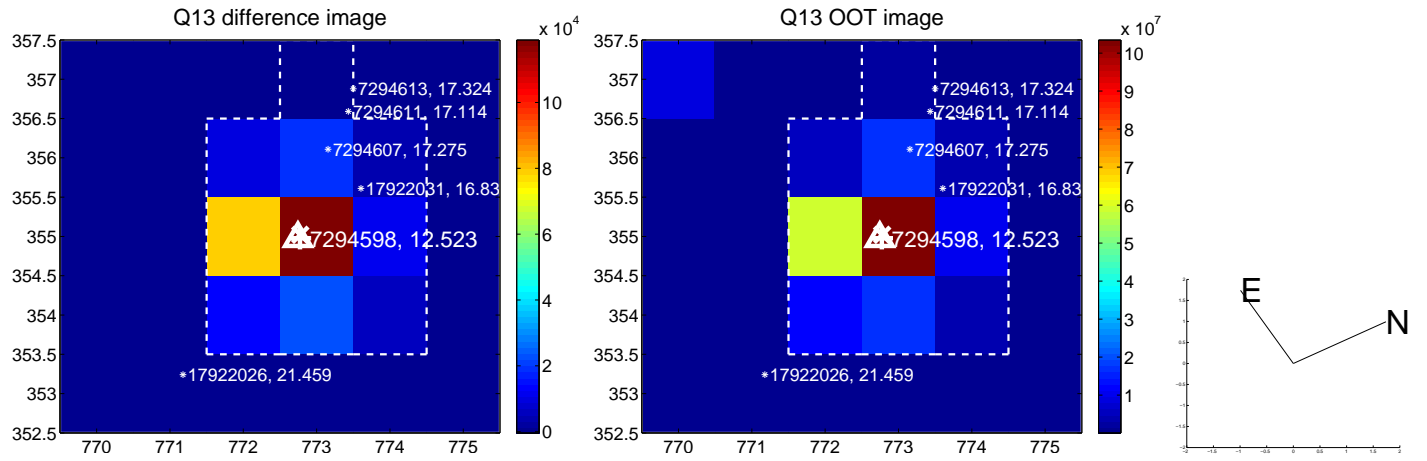
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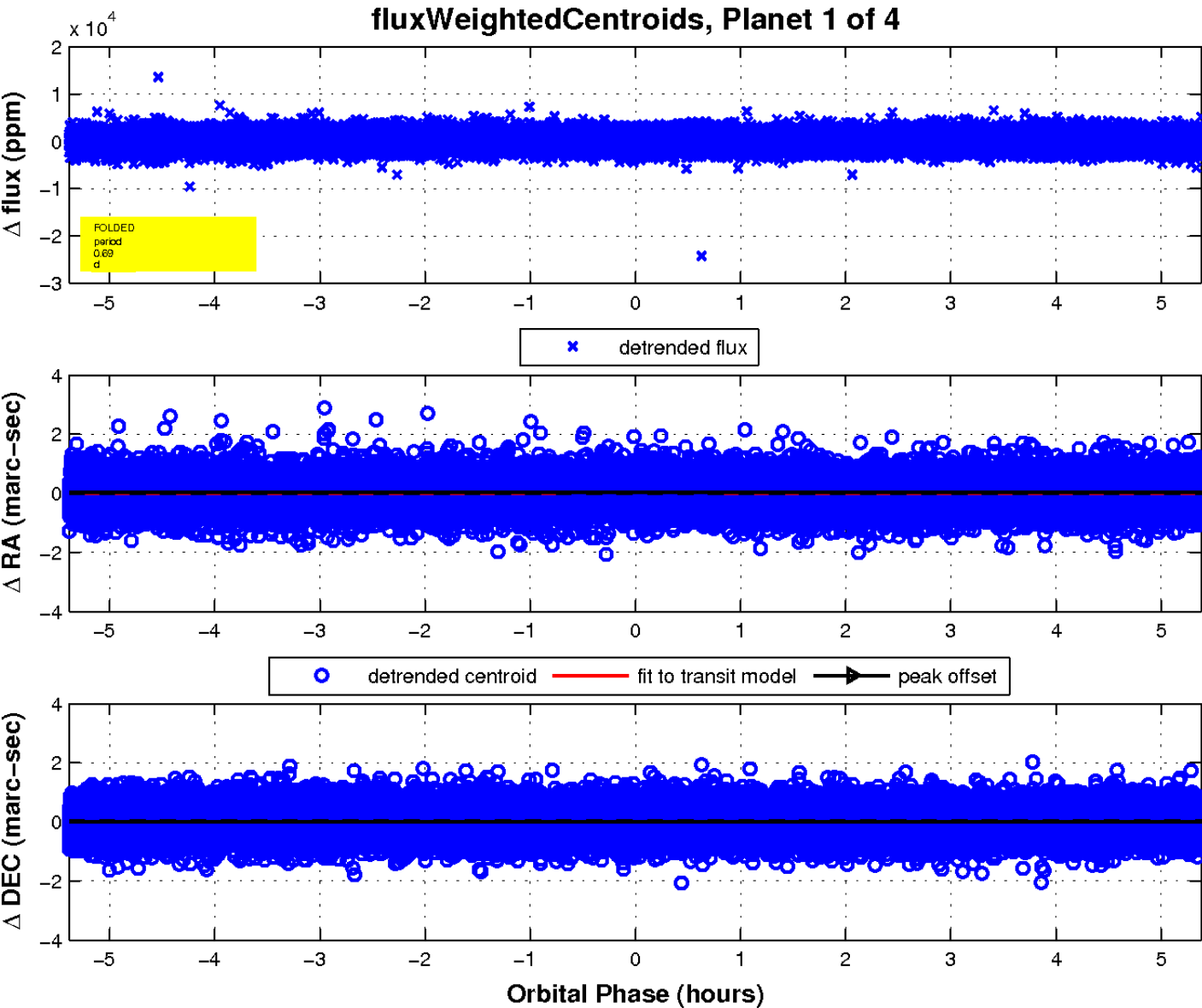
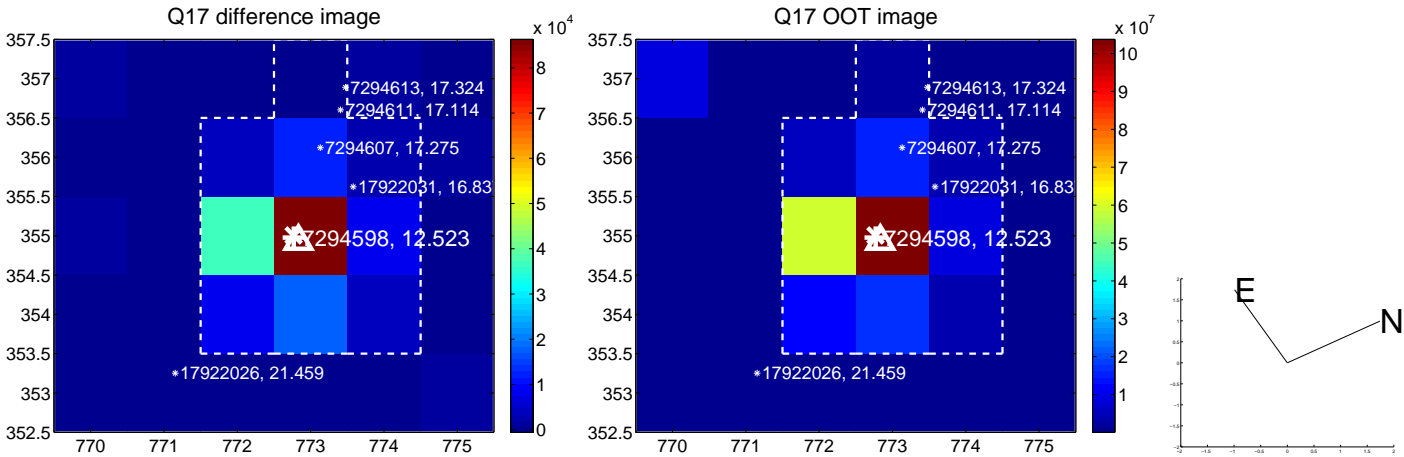
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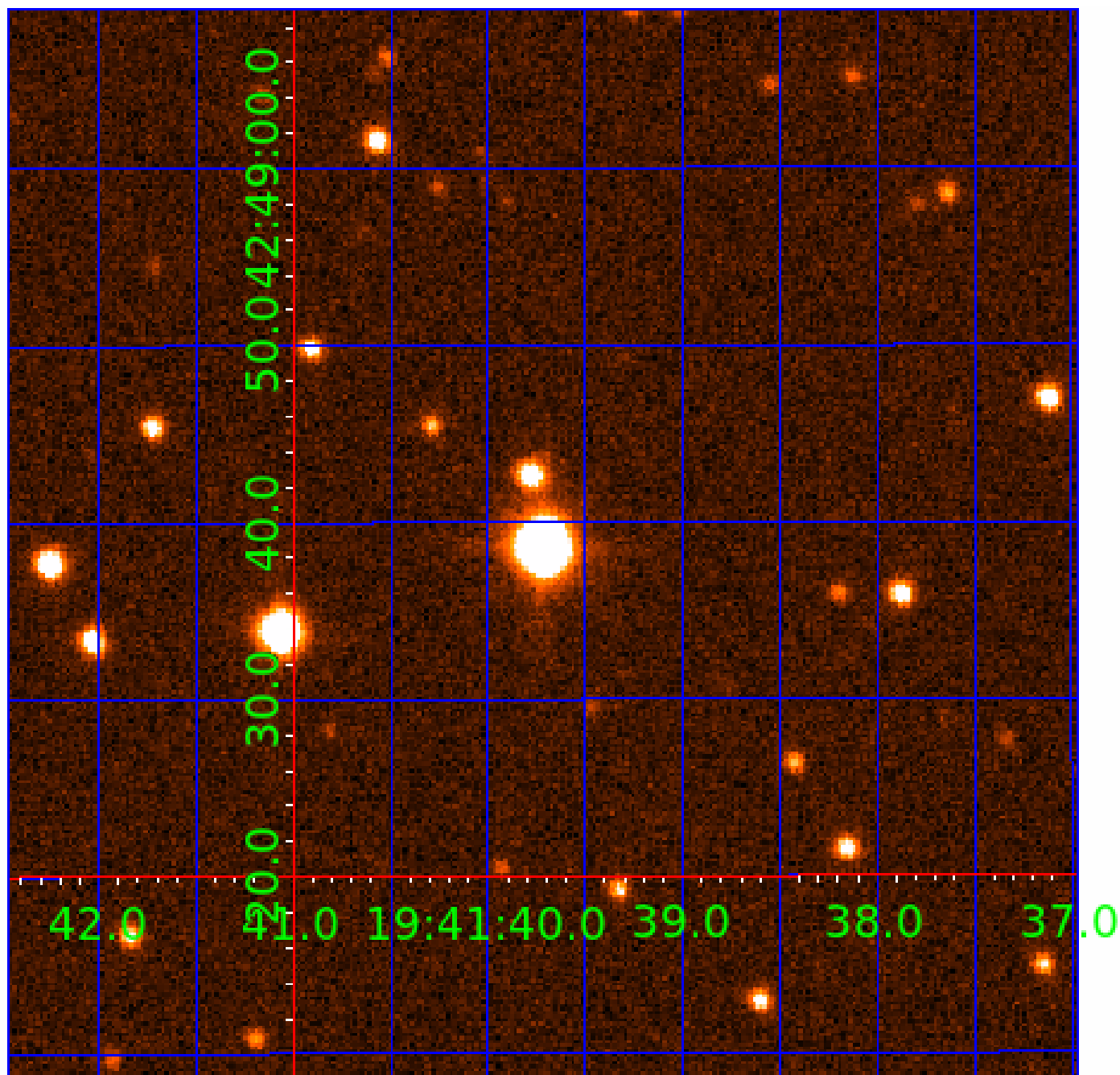


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UKIRT Image

Declination



KIC 007294598

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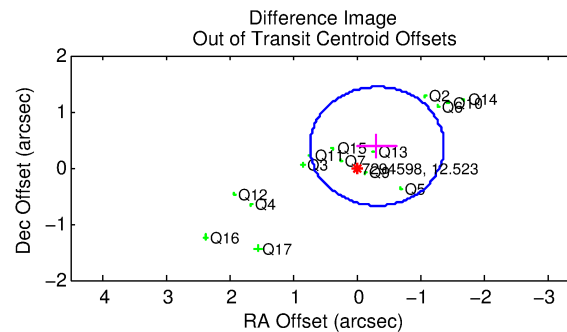
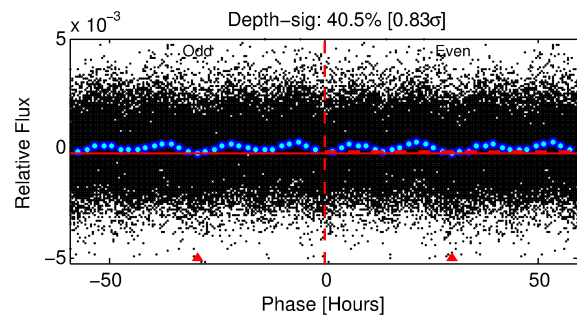
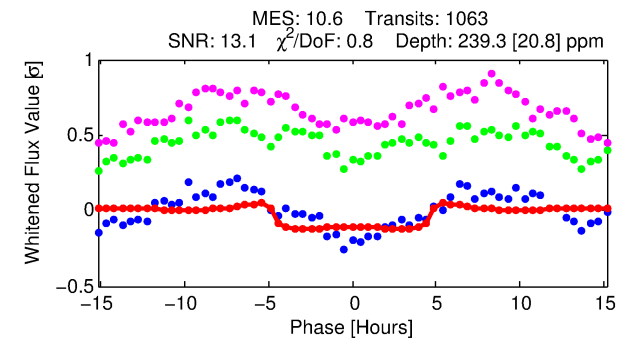
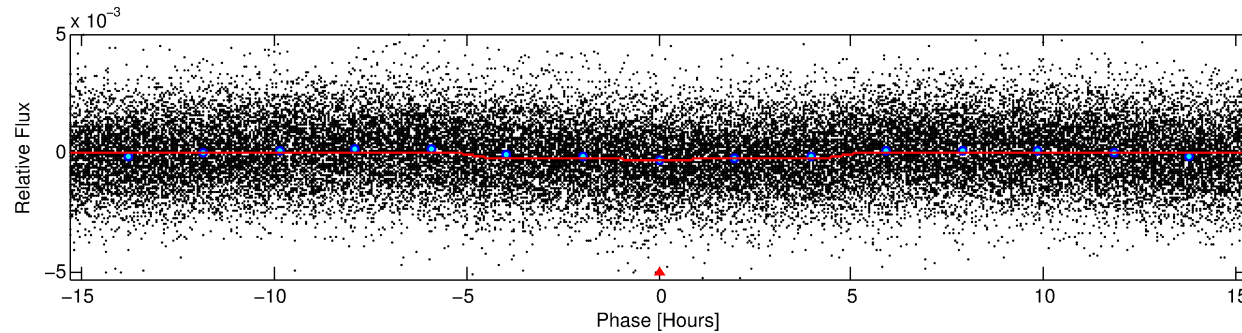
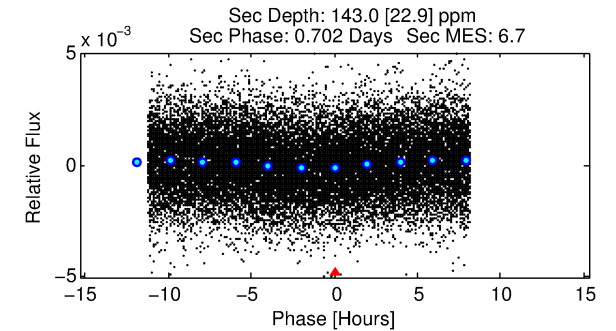
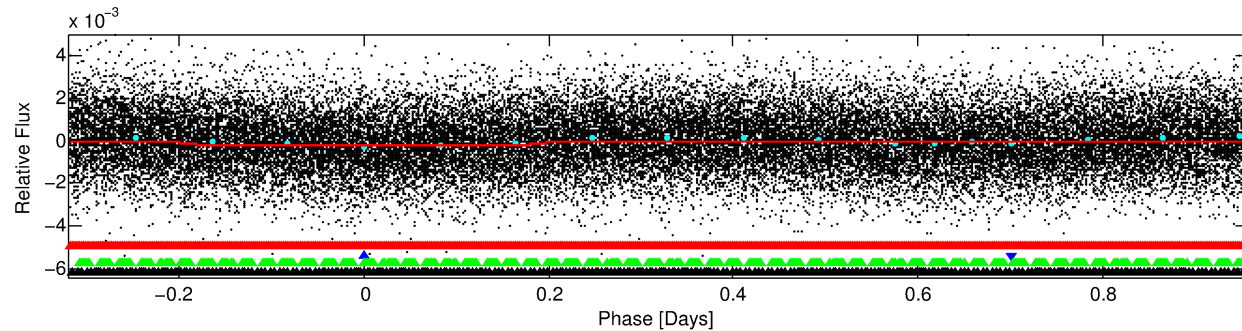
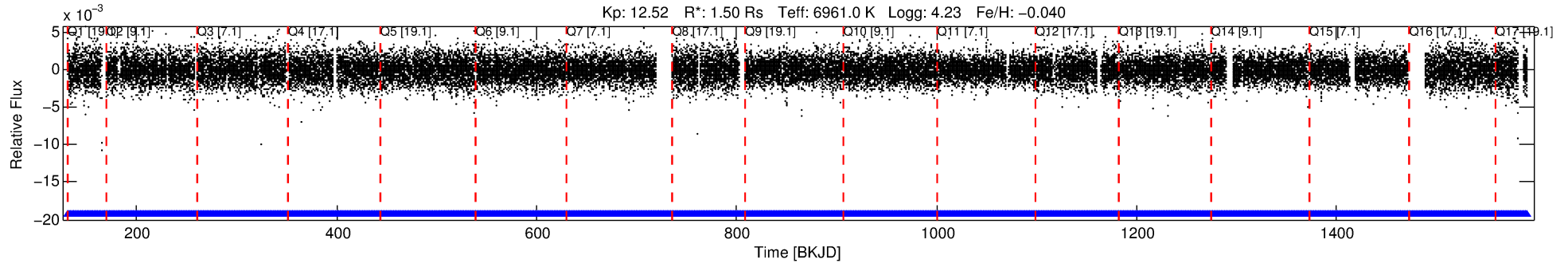
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007294598-02

No Significant Match Found

DV One-Page Summary

KIC: 7294598 Candidate: 2 of 4 Period: 1.277 d



DV Fit Results:

Period = 1.27712 [0.00001] d
Epoch = 131.9287 [0.0047] BKJD
Rp/R* = 0.0144 [0.0078]
a/R* = 1.19 [1.06]
b = 0.23 [12.50]
Seff = 7165.46 [2963.52]
Teq = 2346 [243] K
Rp = 2.36 [1.50] Re
a = 0.0258 [0.0069] AU
Ag = 9.37 [10.95] [0.76σ]
Teffp = 6346 [1764] K [2.25σ]

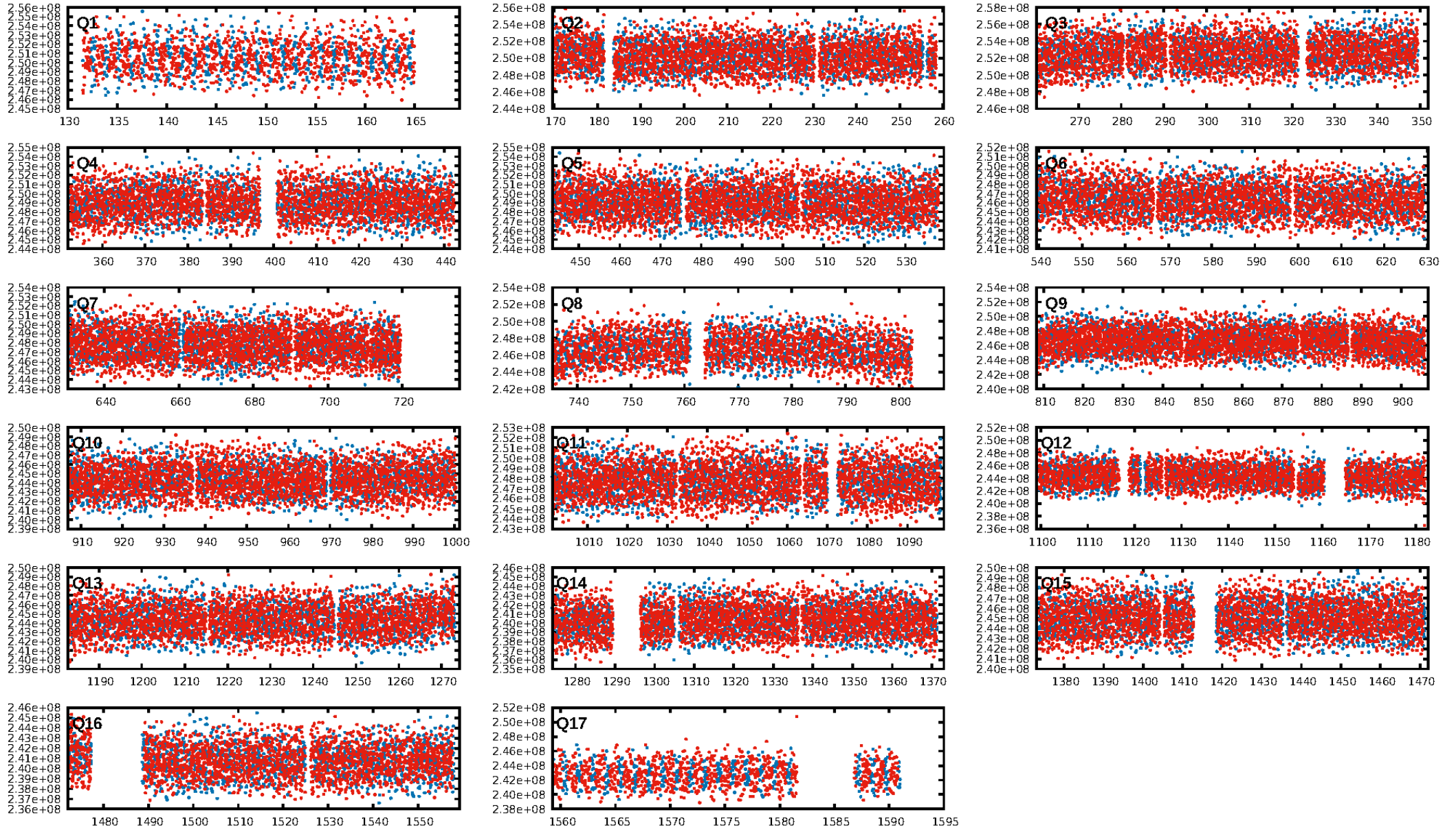
DV Diagnostic Results:

ShortPeriod-sig: 83.9% [1.40σ]
LongPeriod-sig: 100.0% [4.65σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1015/1015]
GhostDiagnostic-chr: 1.389
Centroid-sig: 0.0%
Centroid-so: 0.147 arcsec [3.58σ]
OotOffset-rm: 0.500 arcsec [1.42σ]
KicOffset-rm: 0.471 arcsec [1.29σ]
OotOffset-st: 4/4/3/4 [15]
KicOffset-st: 4/4/3/4 [15]
DiffImageQuality-fgm: 1.00 [15/15]
DiffImageOverlap-fno: 0.00 [0/17]

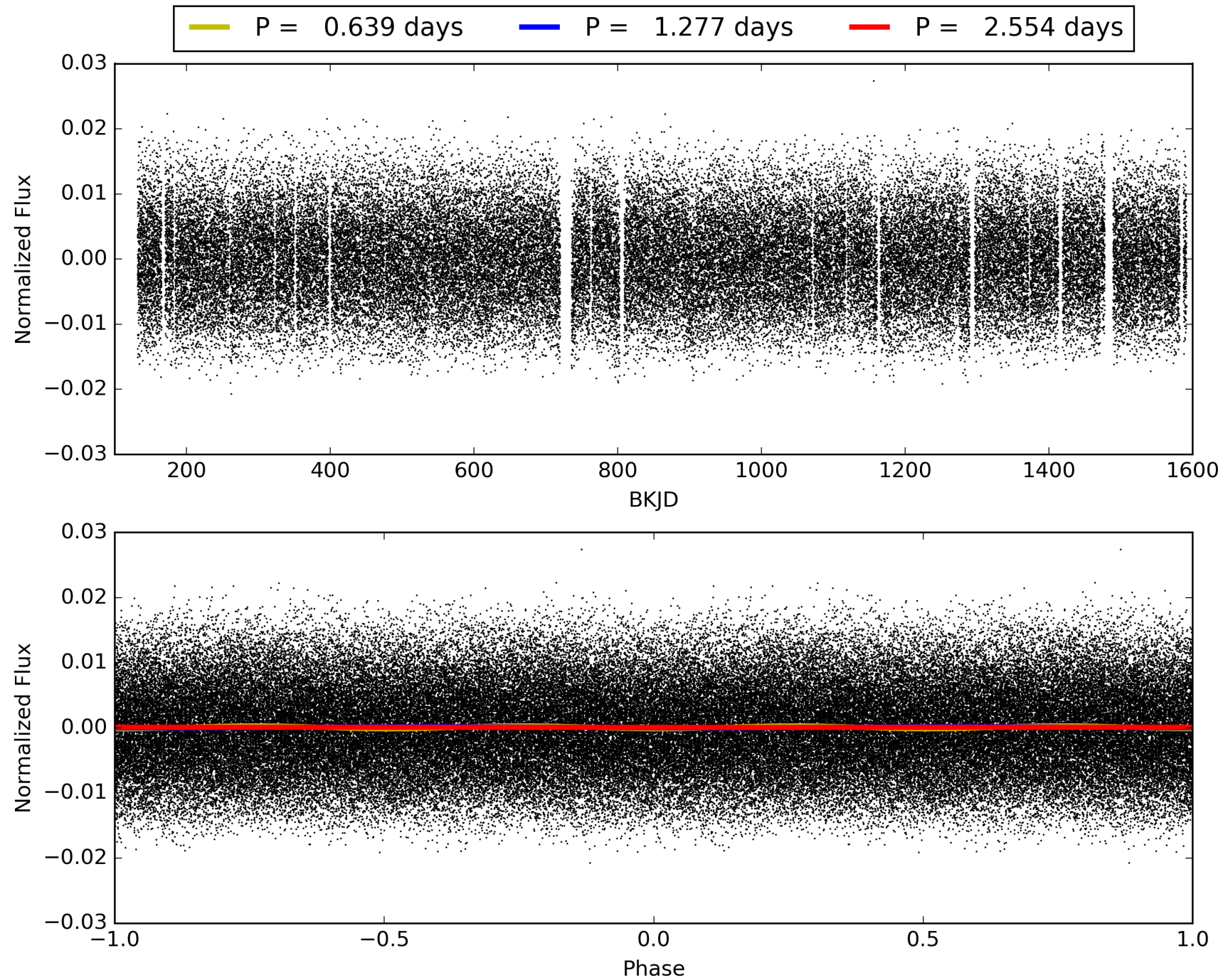
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:07:42 Z

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

TCE 007294598-02, PDC Light Curves

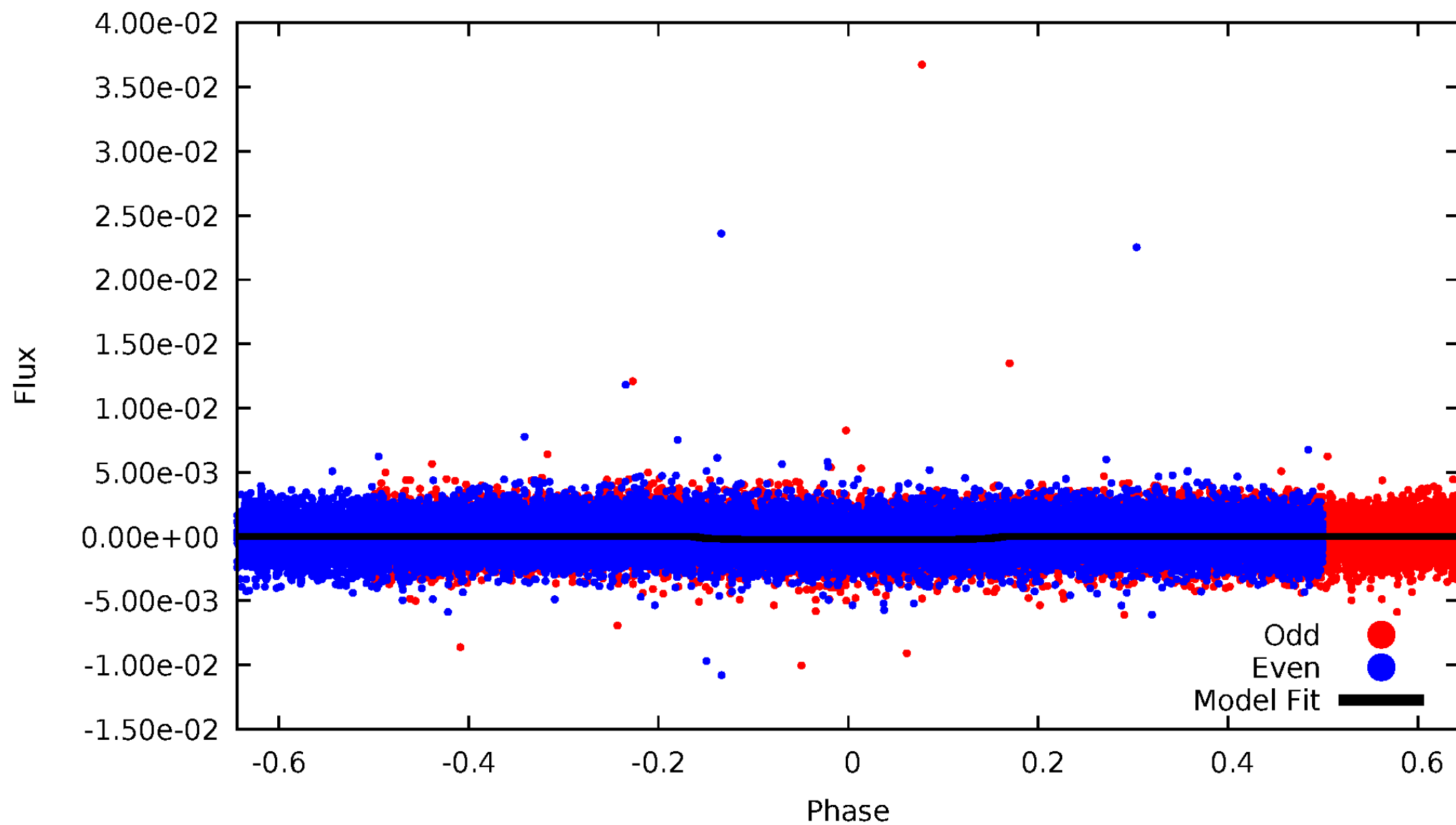


TCE 007294598-02



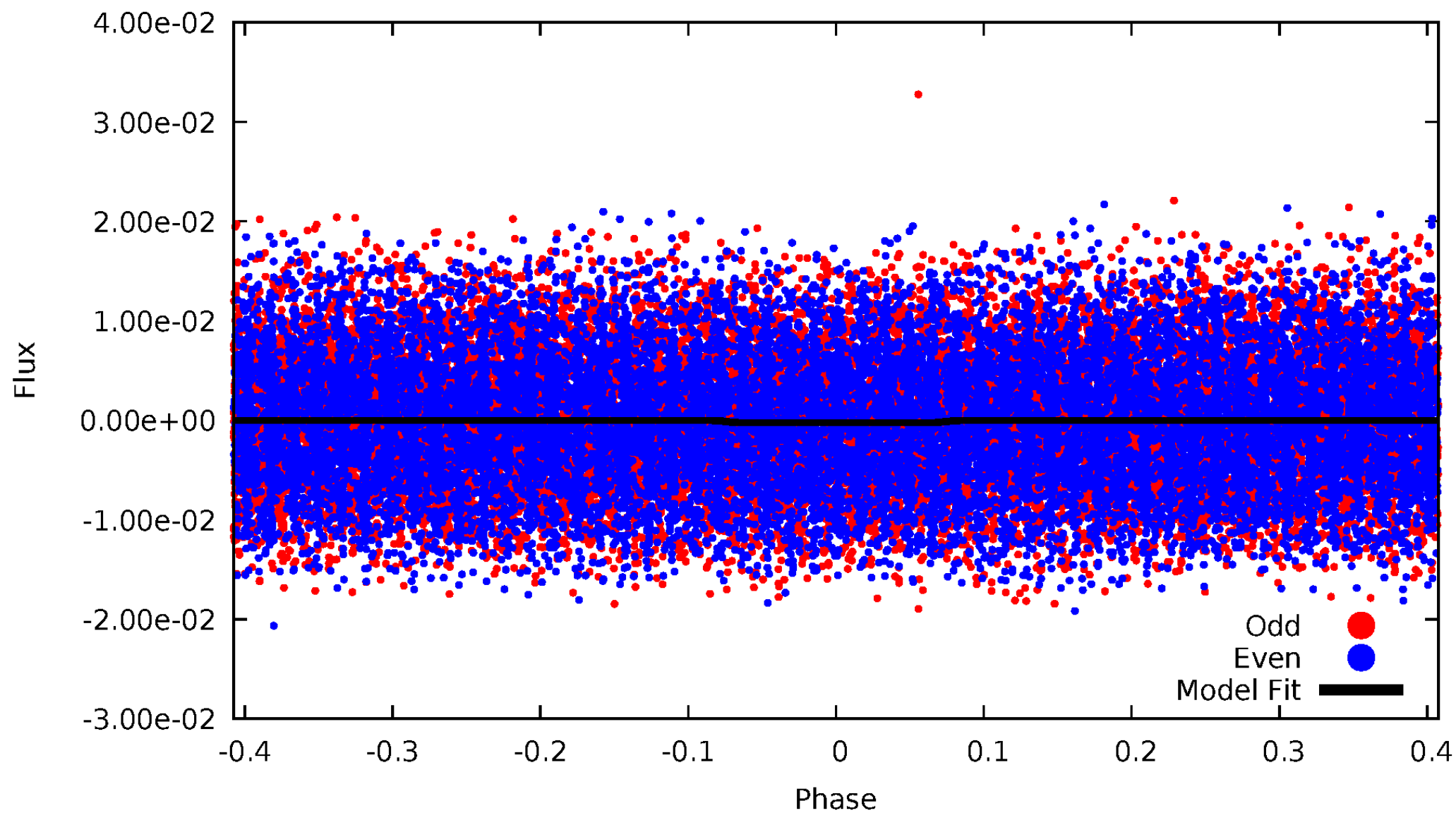
DV Odd/Even

TCE 007294598-02



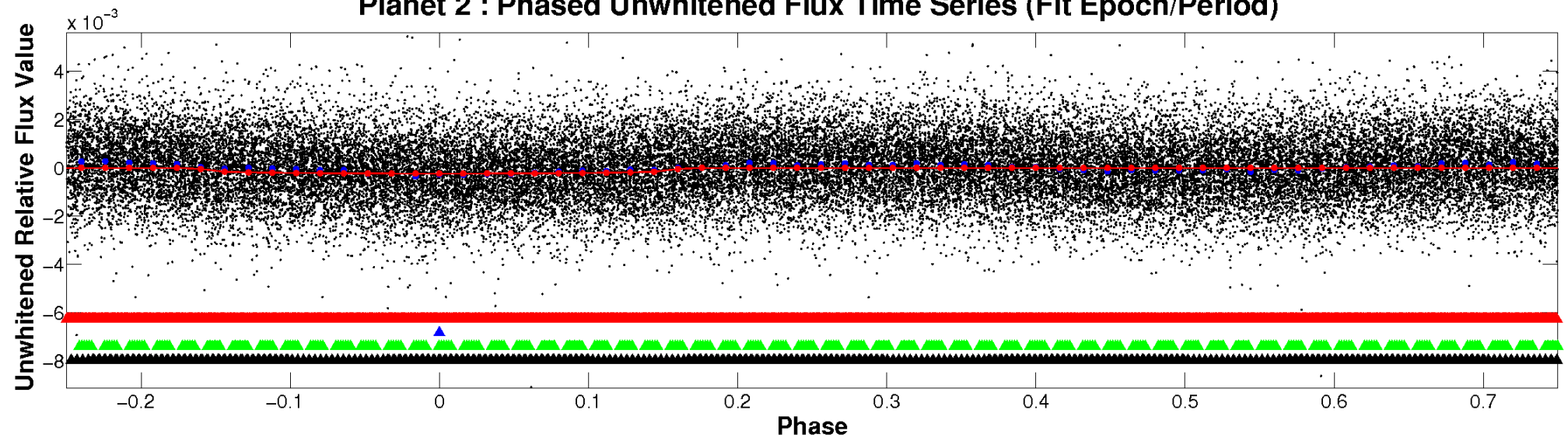
ALT Odd/Even

TCE 007294598-02

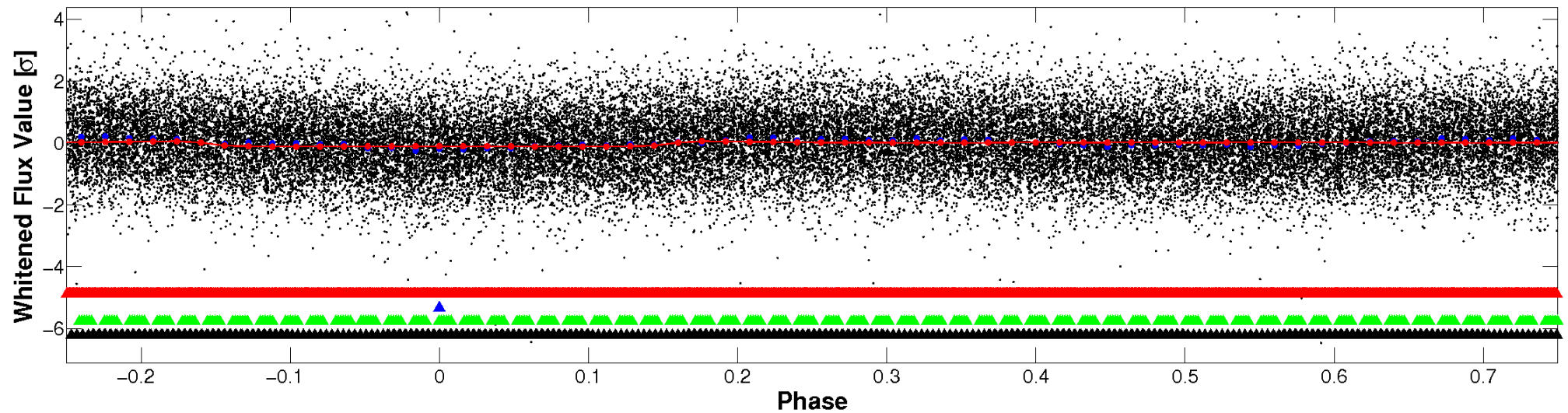


Non-Whitened Vs. Whitened Light Curve

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

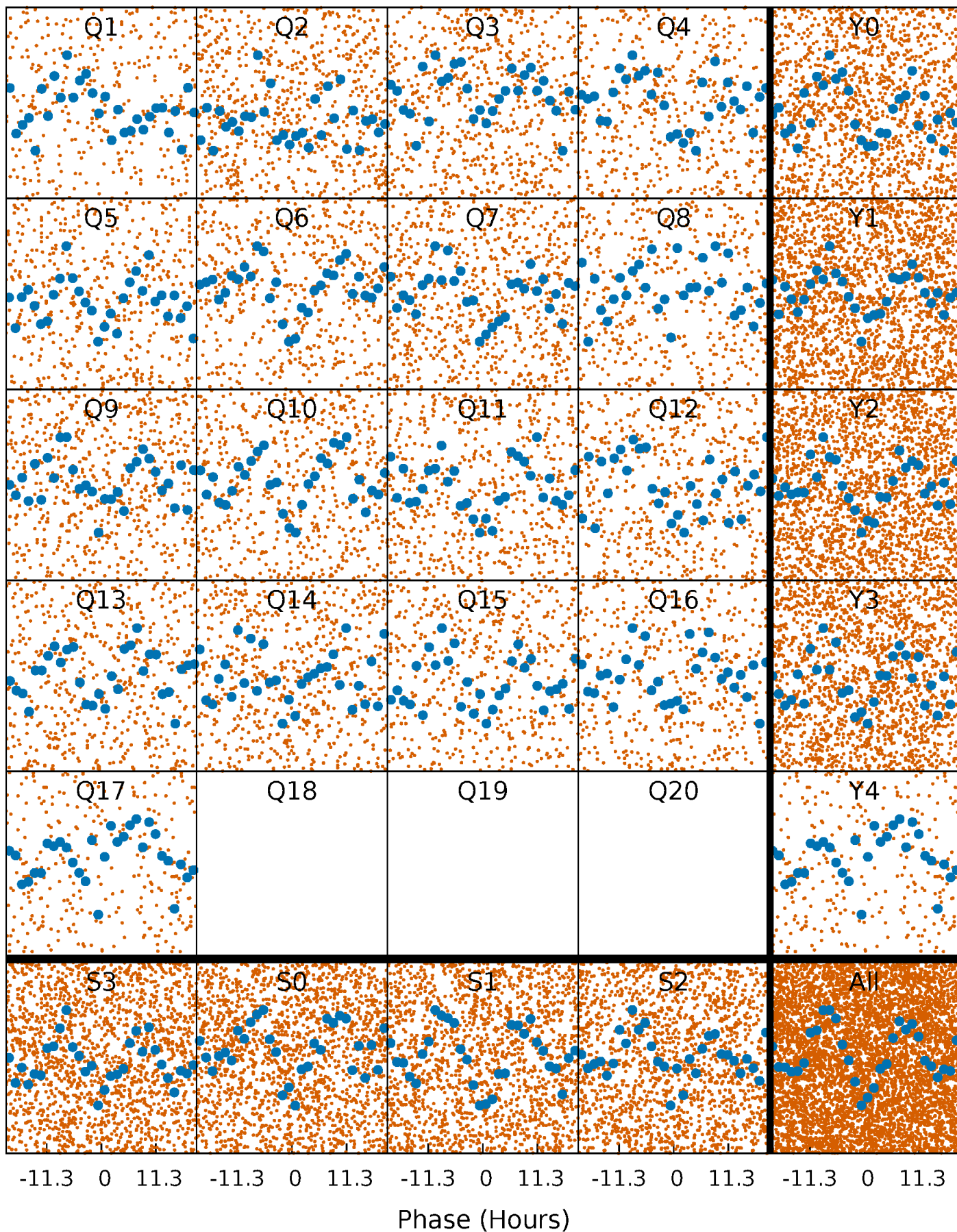


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



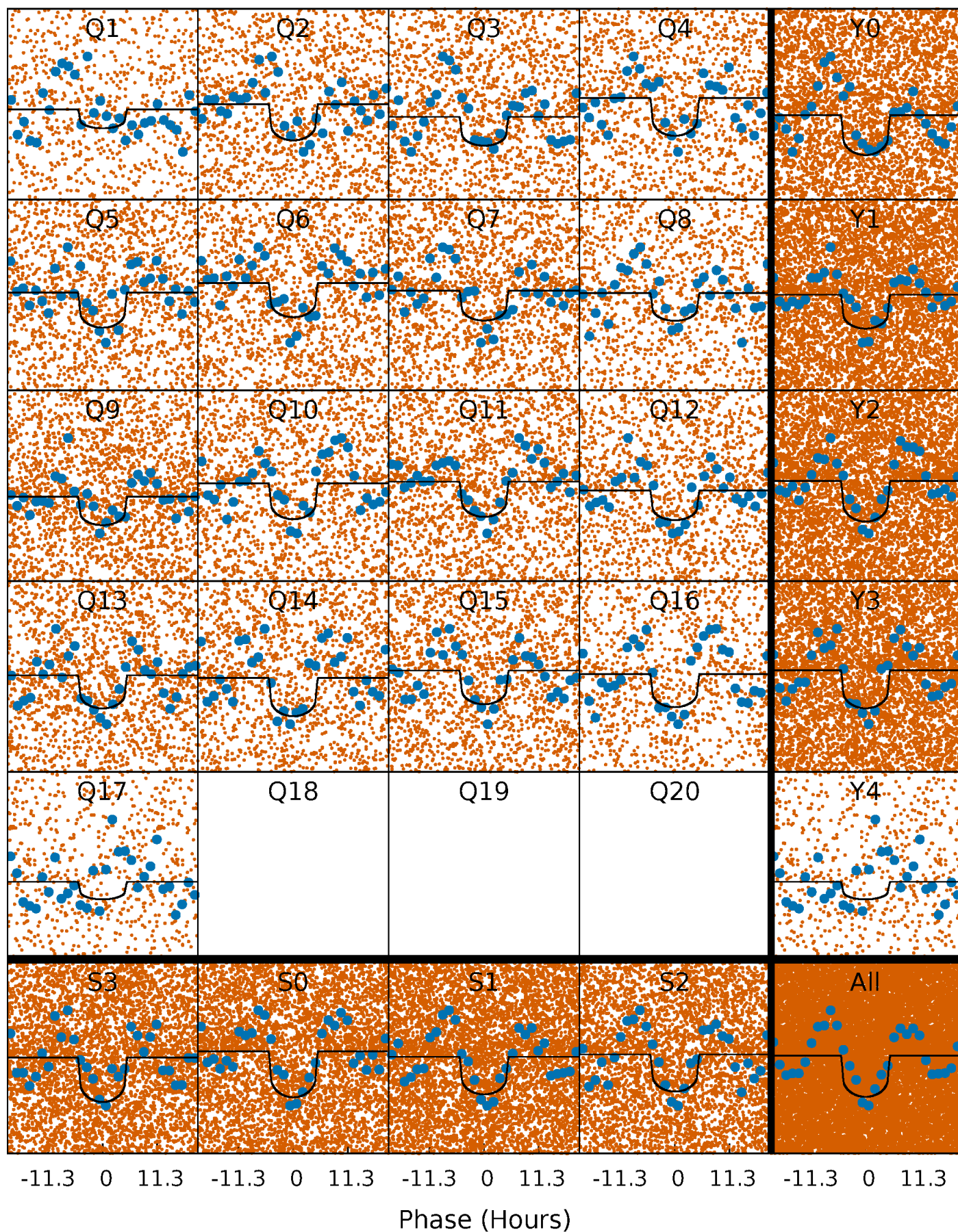
PDC Quarter-Phased Transit Curves

TCE 007294598-02 P= 1.277121 Days $T_0=131.928699$ (BKJD)



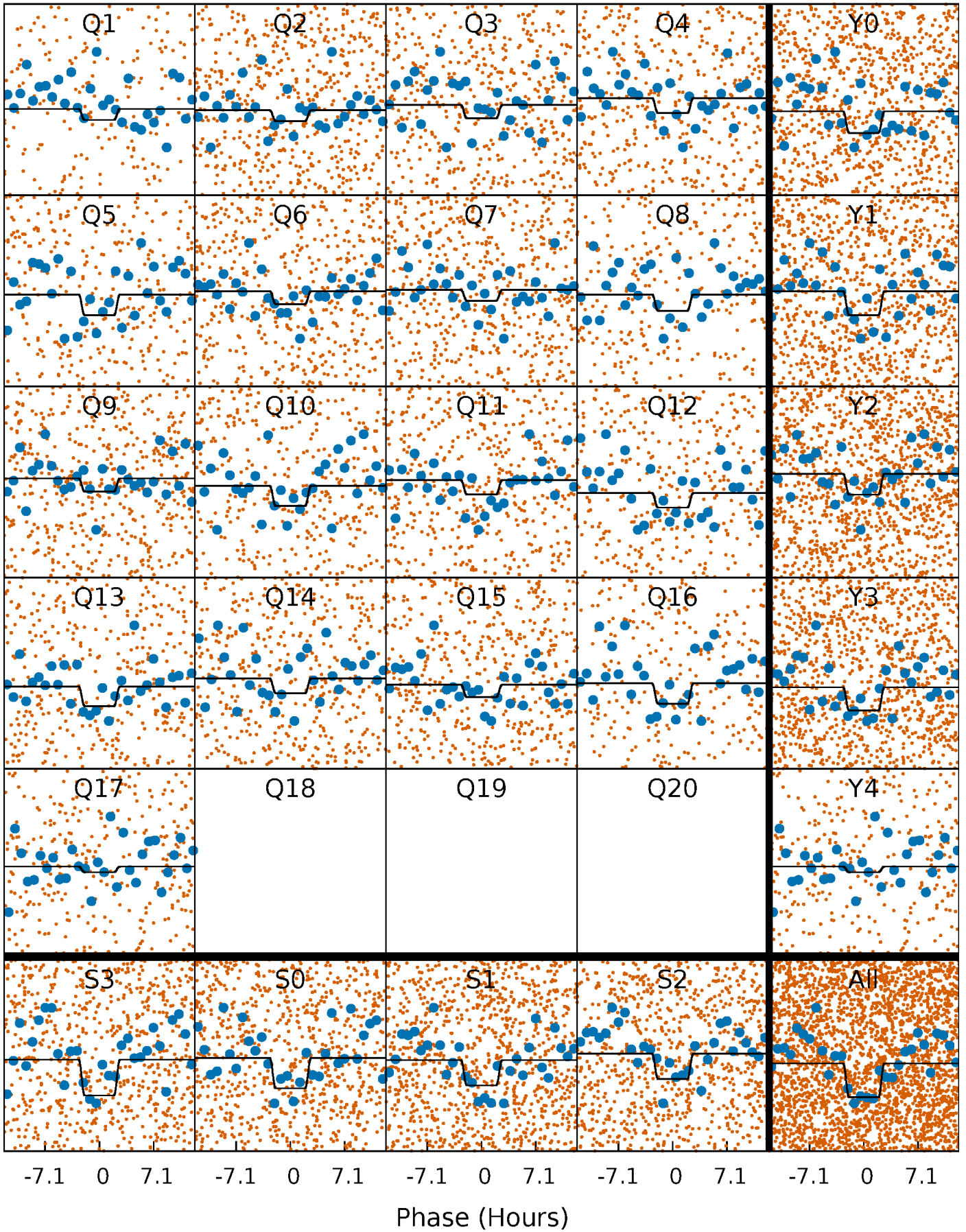
DV Quarter-Phased Transit Curves

TCE 007294598-02 P= 1.277121 Days $T_0=131.928699$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

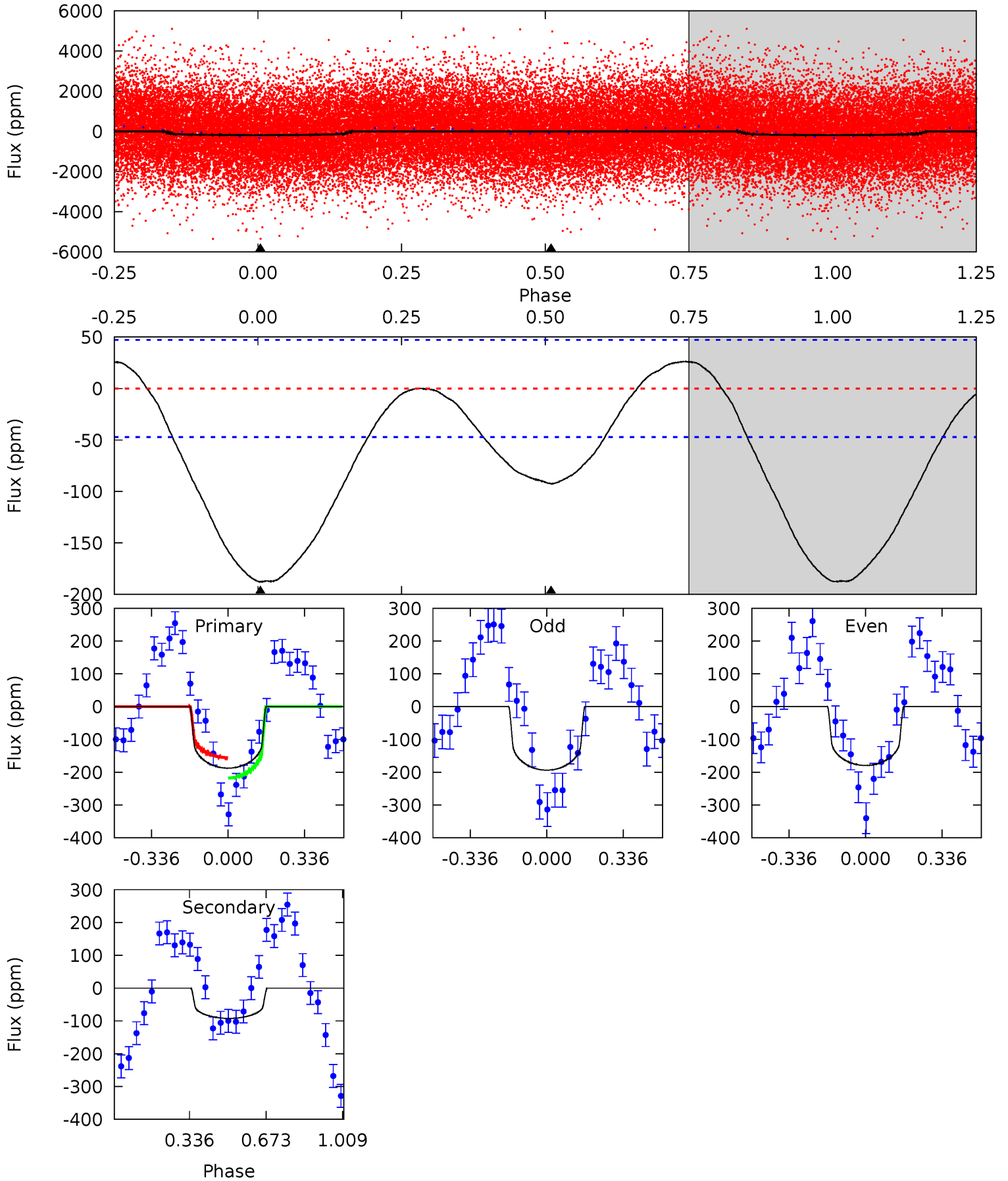
TCE 007294598-02 P= 1.277174 Days $T_0=131.896260$ (BKJD)



DV Model-Shift Uniqueness Test

007294598-02, P = 1.277121 Days, E = 130.651578 Days

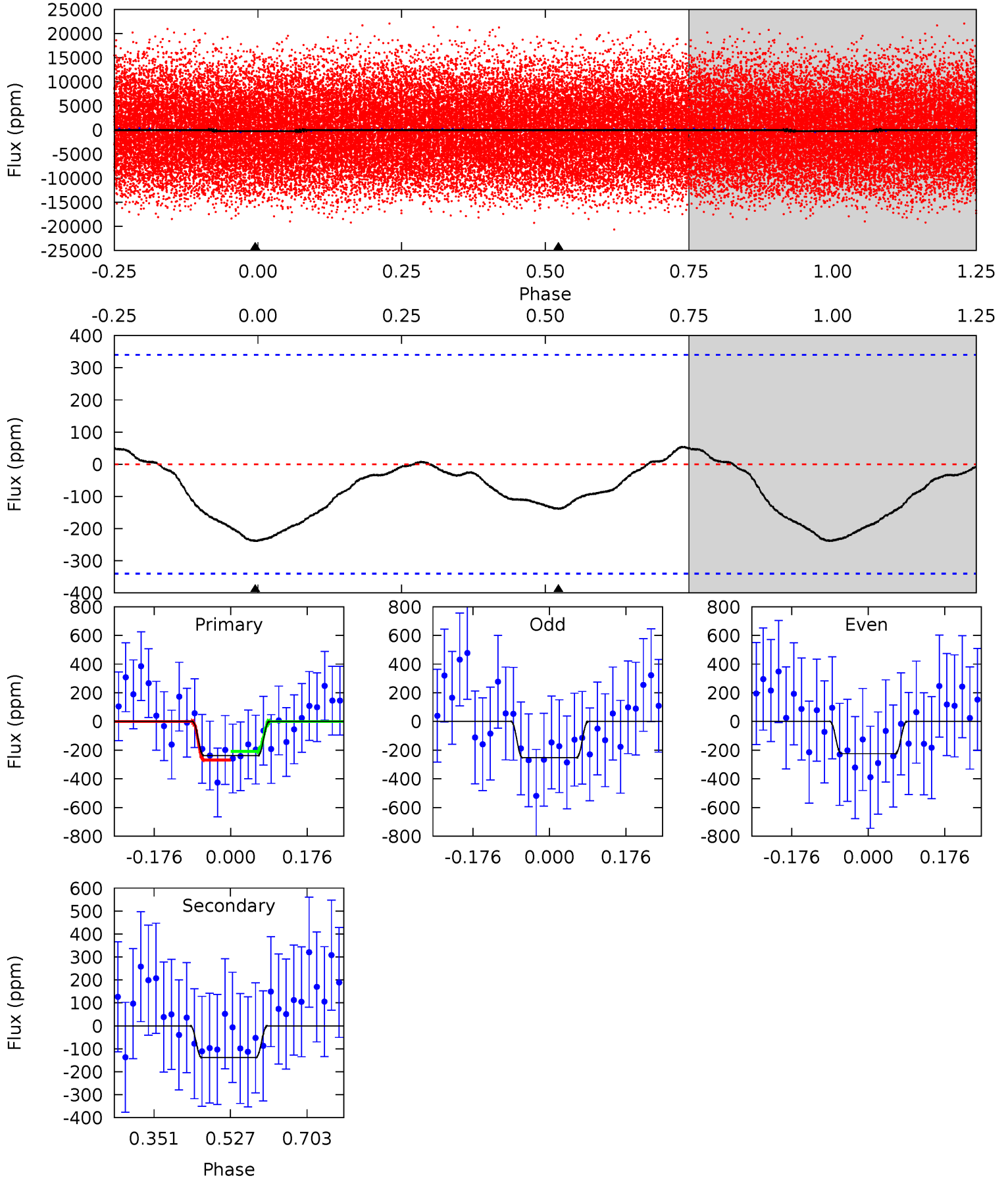
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.1	8.43	0	0	4.30	0.96	1.37	17.1	17.1	8.43	8.43	0.65	1.04	0.12	2.88



Alt Model-Shift Uniqueness Test

007294598-02, P = 1.277174 Days, E = 130.619086 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.11	1.81	0	0	4.45	1.35	0.39	3.11	3.11	1.81	1.81	0.19	1.27	0.18	0.39



Stellar Parameters For KIC 007294598

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6961^{+166}_{-249}	$4.229^{+0.090}_{-0.210}$	$-0.040^{+0.250}_{-0.350}$	$1.503^{+0.487}_{-0.262}$	$1.401^{+0.202}_{-0.202}$	$0.581^{+0.281}_{-0.299}$
	+2%/-4%	+2%/-5%	+625%/-875%	+32%/-17%	+14%/-14%	+48%/-51%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 007294598-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-92 ± 11	$2.39^{+1.43}_{-1.23}$	3325^{+233}_{-189}	5594^{+3002}_{-1079}	$5.872^{+18.756}_{-3.658}$
Alt.	-138 ± 77	$2.67^{+1.45}_{-1.27}$	3326^{+246}_{-194}	5865^{+2733}_{-1401}	$6.727^{+19.823}_{-4.678}$

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 $A_{\text{obs}} \gg 1.0$

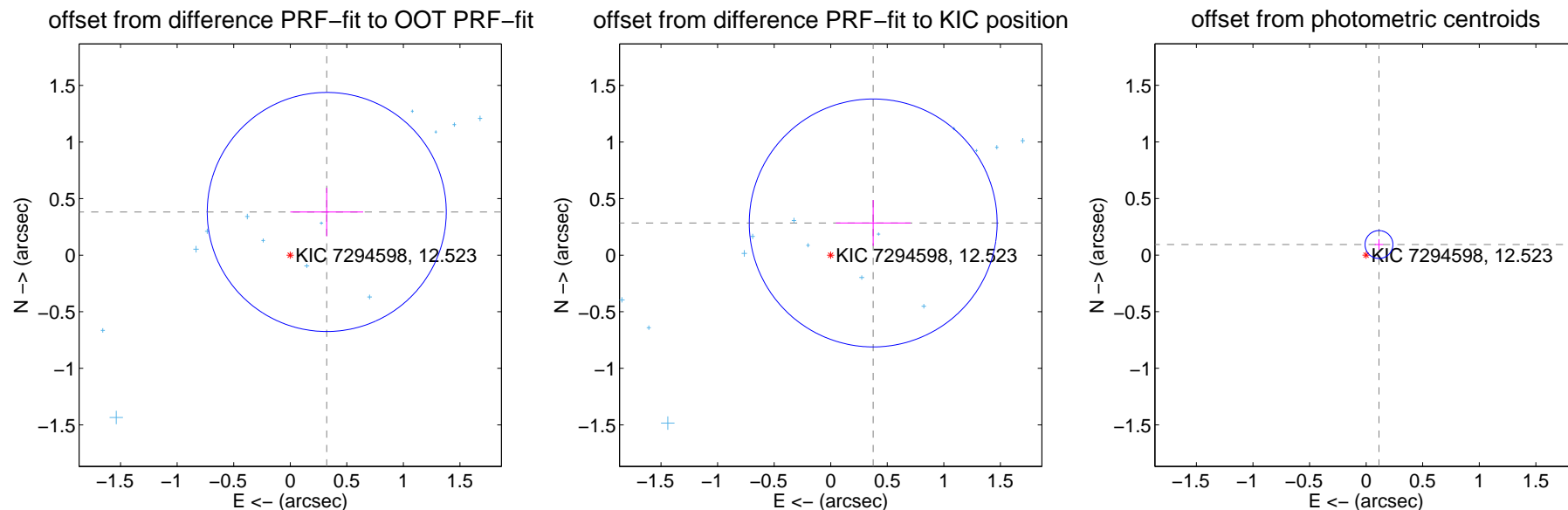
DV Centroid Data

Supplemental centroid analysis for 007294598-02. Kepler magnitude: 12.52. Transit SNR 13.07

There are 15 quarters with good PRF difference image offsets

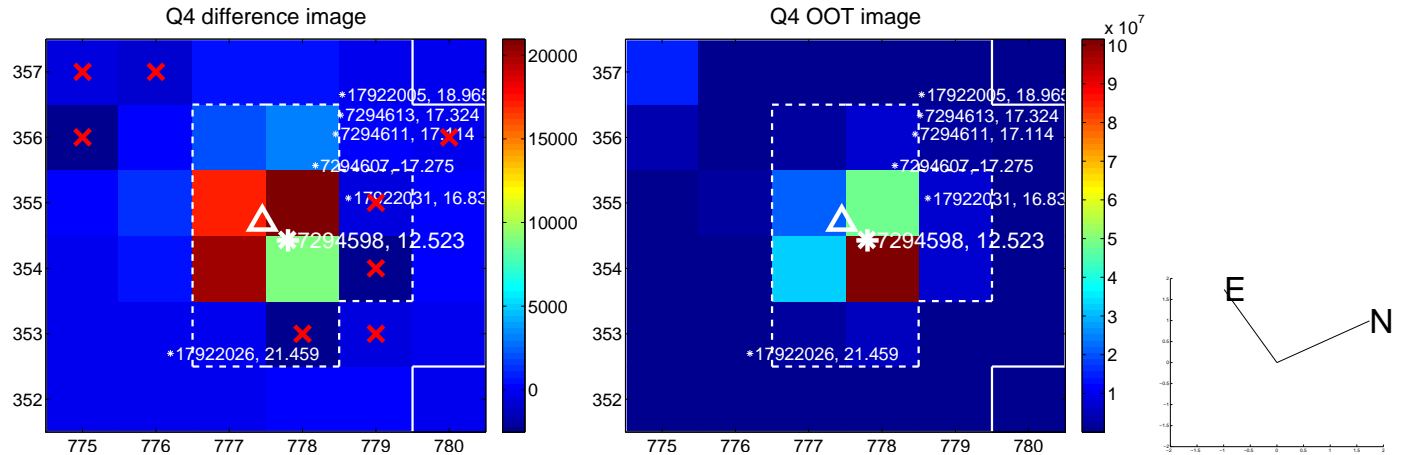
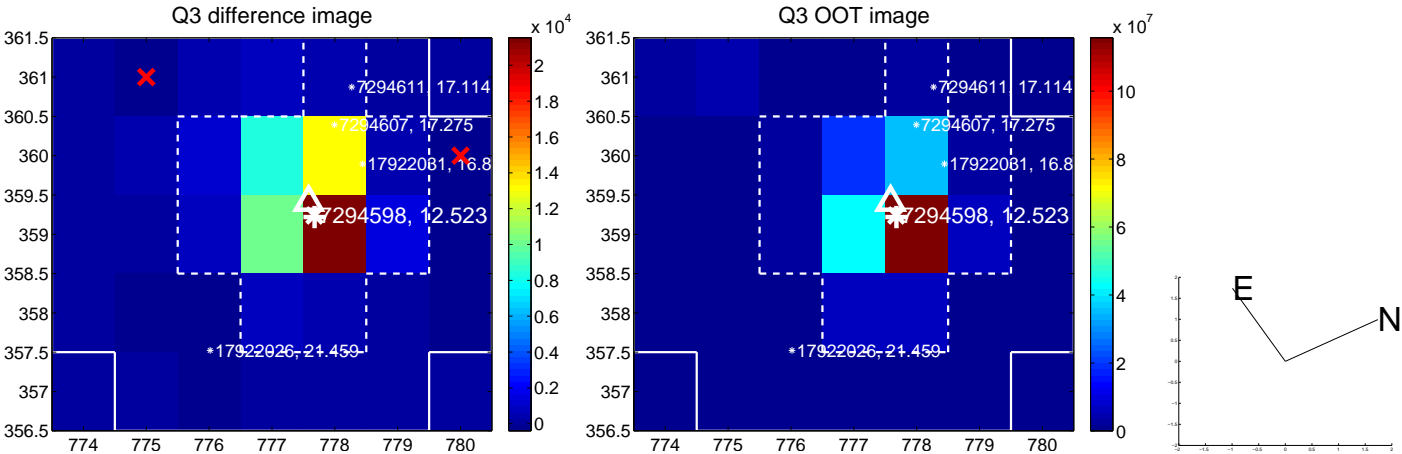
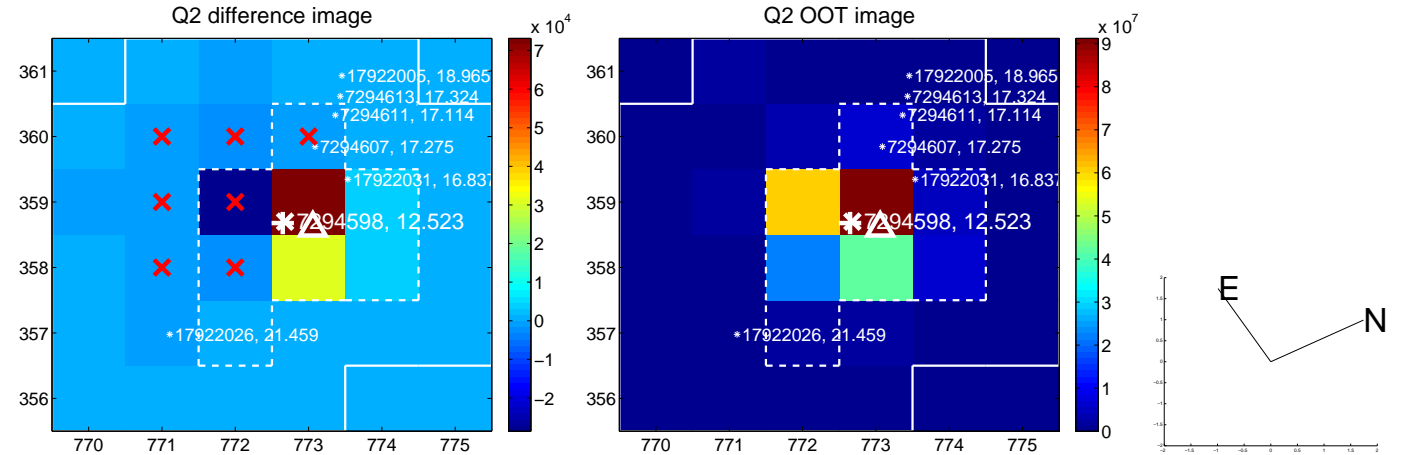
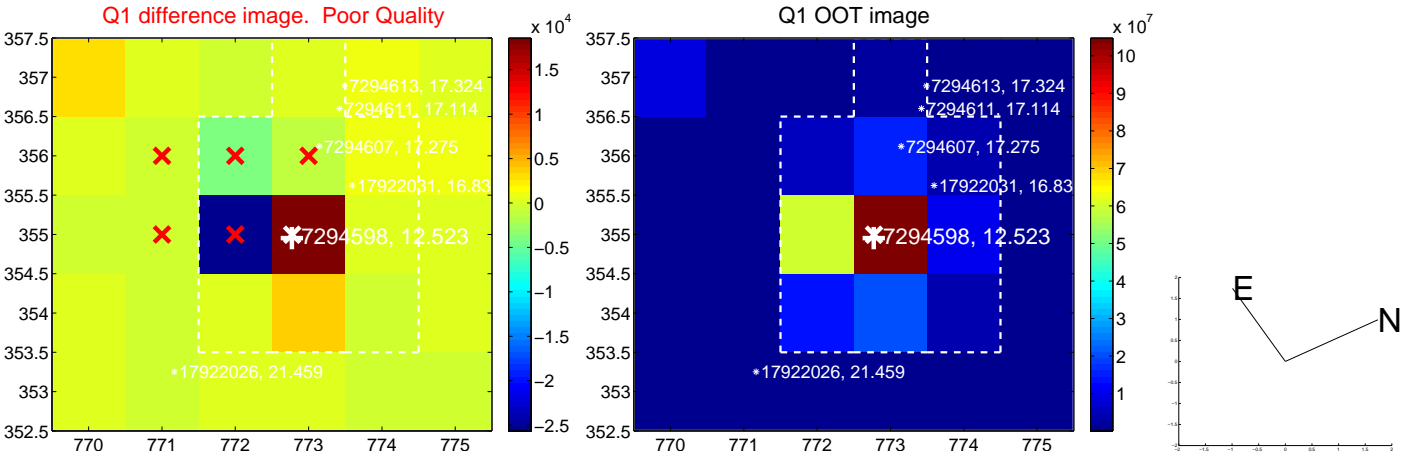
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.500 ± 0.352	1.42	-0.323 ± 0.322	0.382 ± 0.214
PRF-fit source offset from KIC position	0.471 ± 0.365	1.29	-0.375 ± 0.330	0.285 ± 0.203
photometric centroid source offset	0.15 ± 0.04	3.58	-0.11 ± 0.04	0.09 ± 0.05

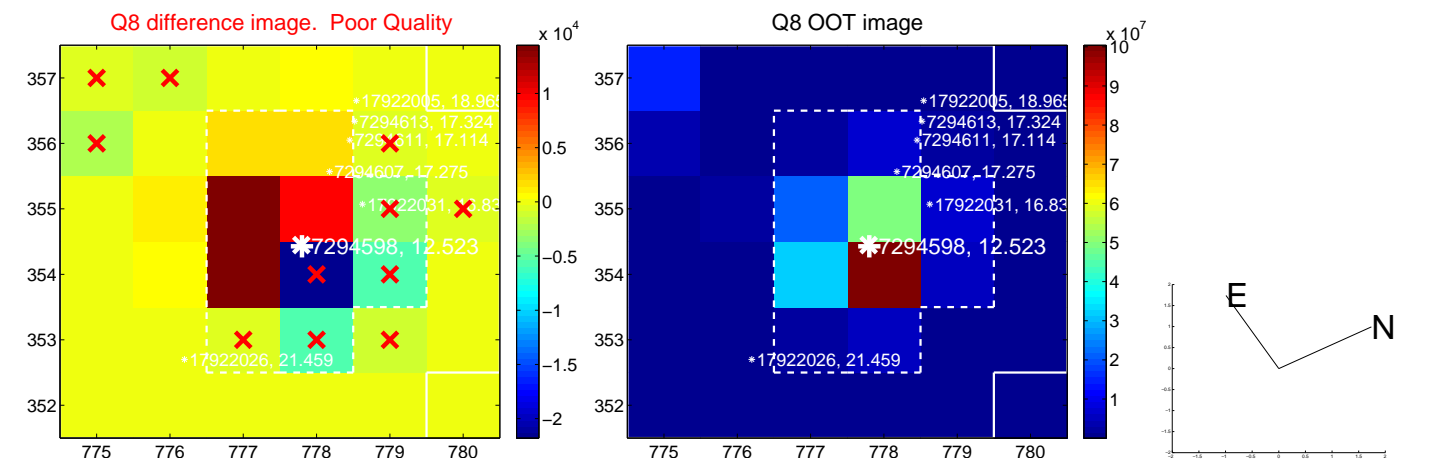
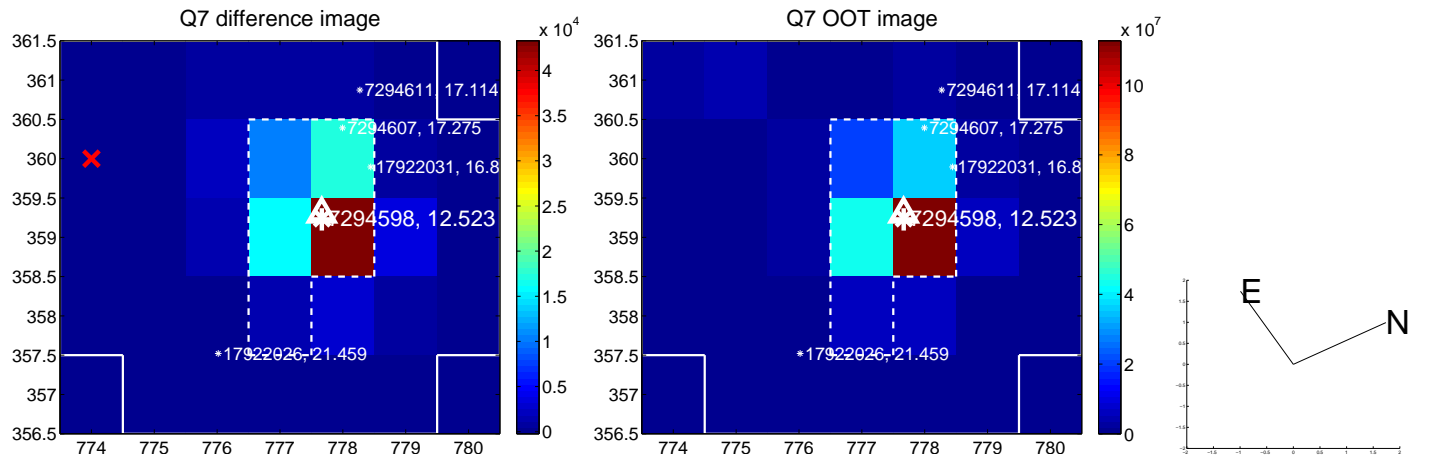
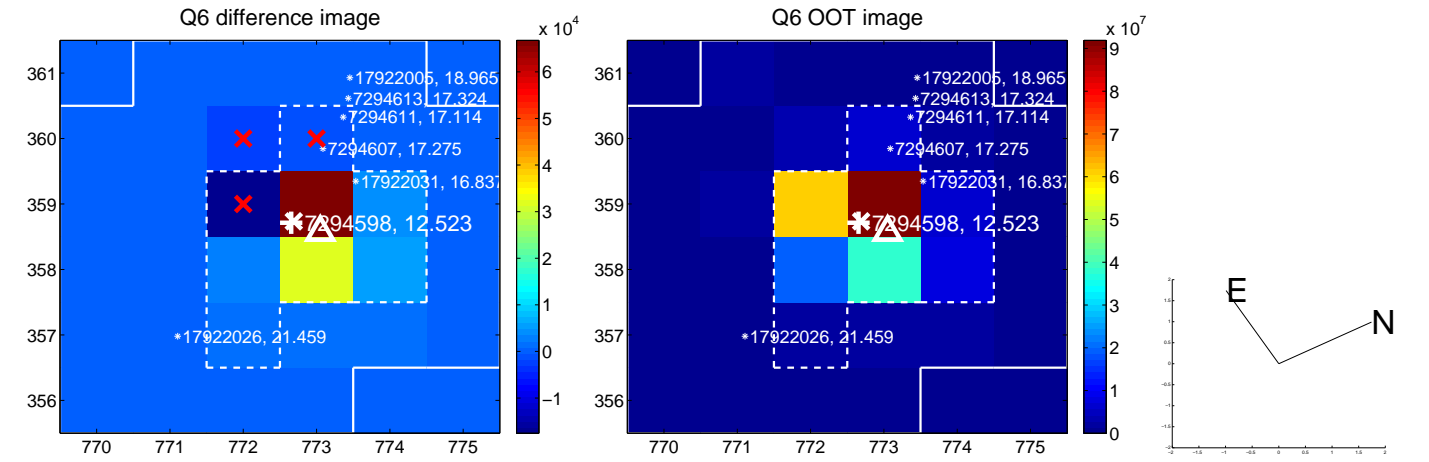
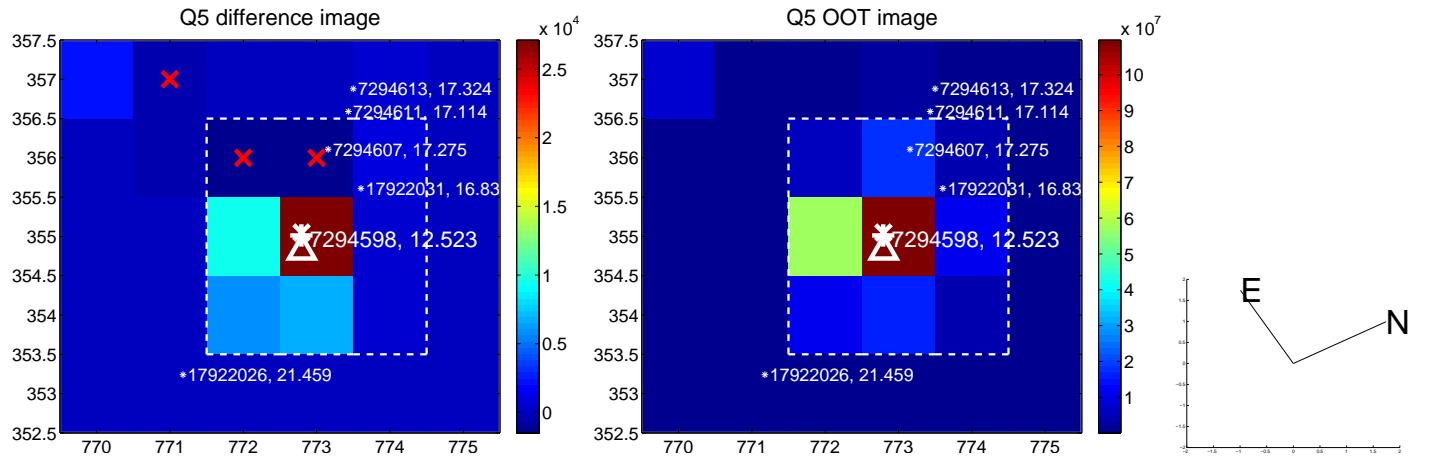


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

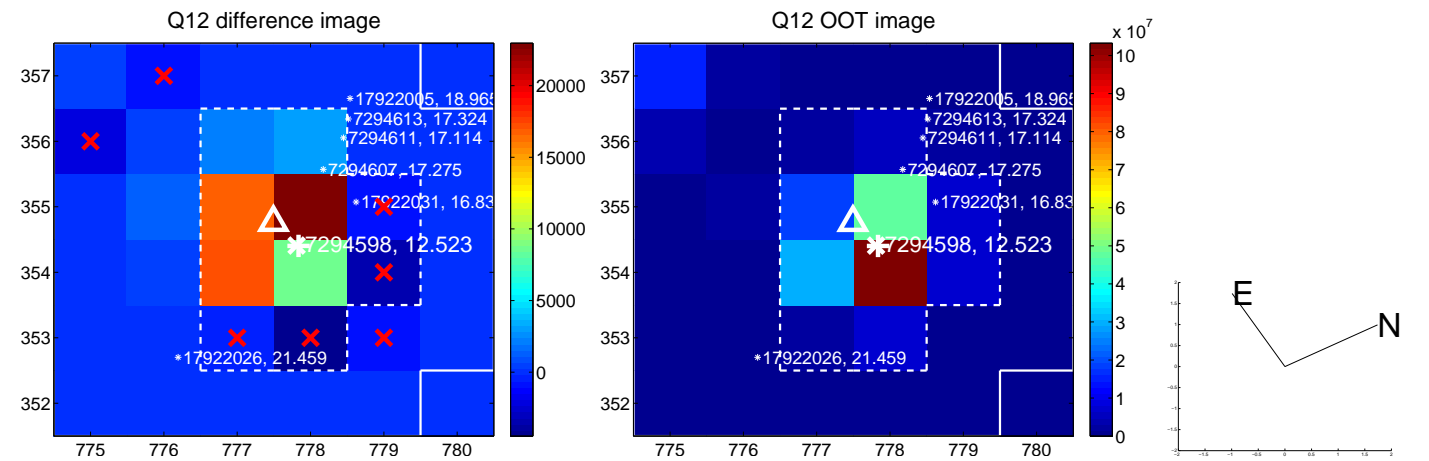
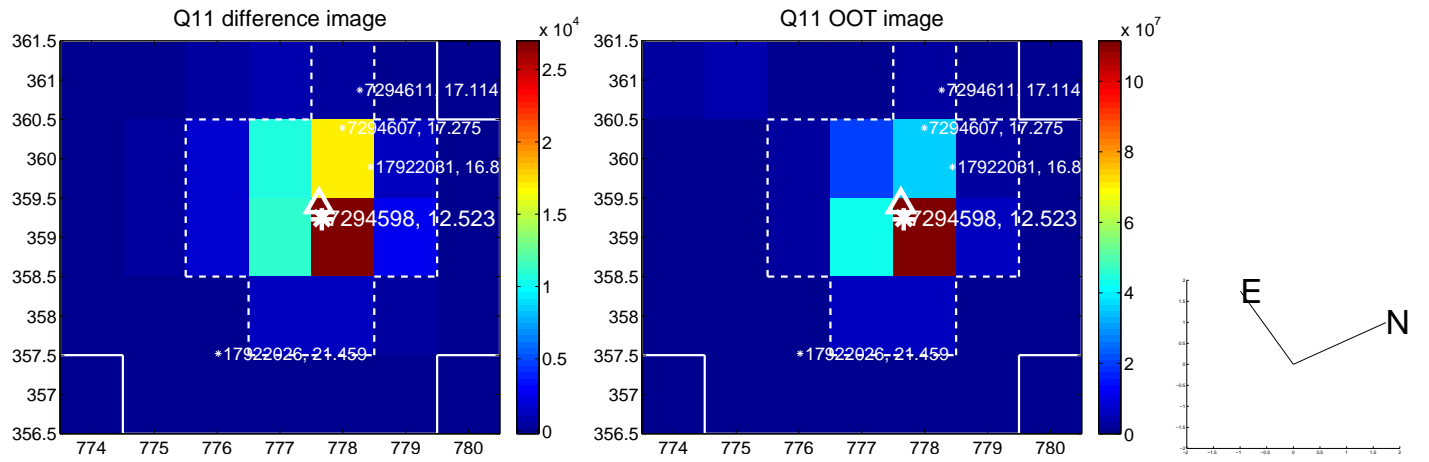
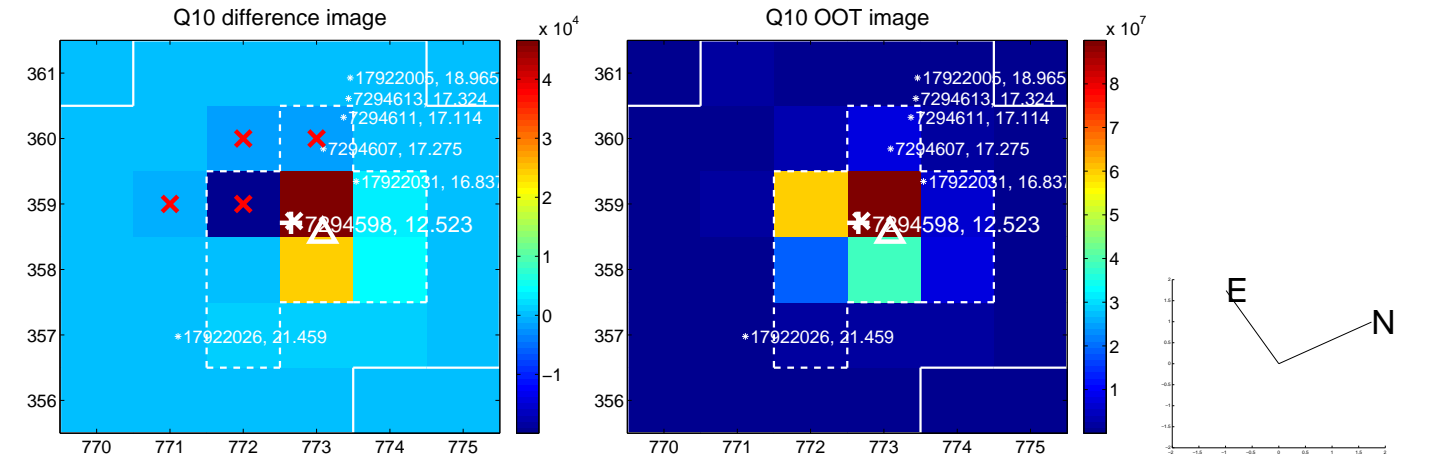
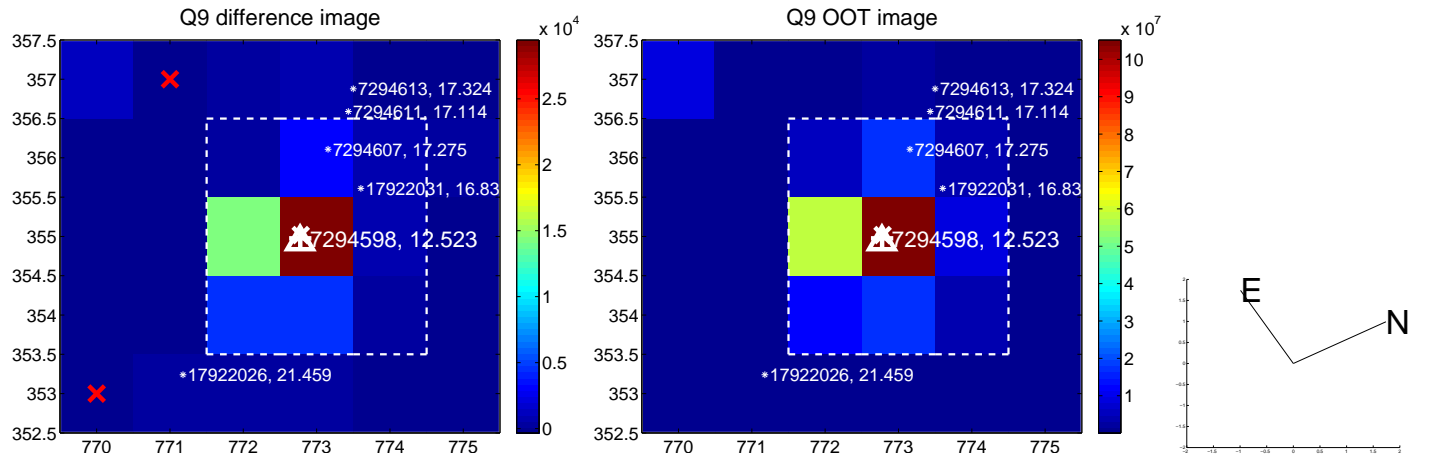
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



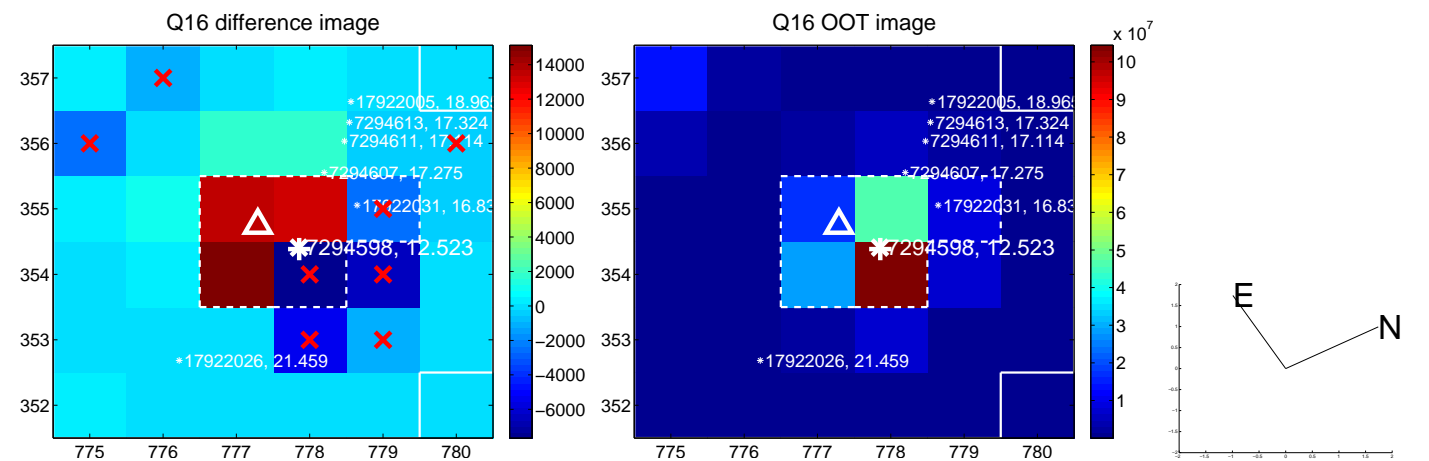
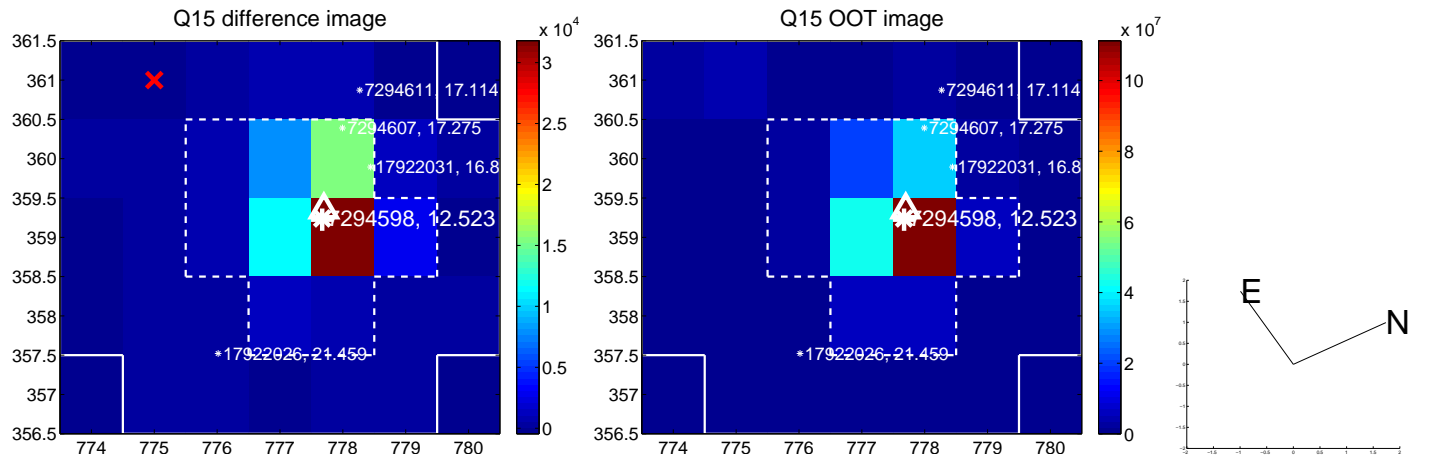
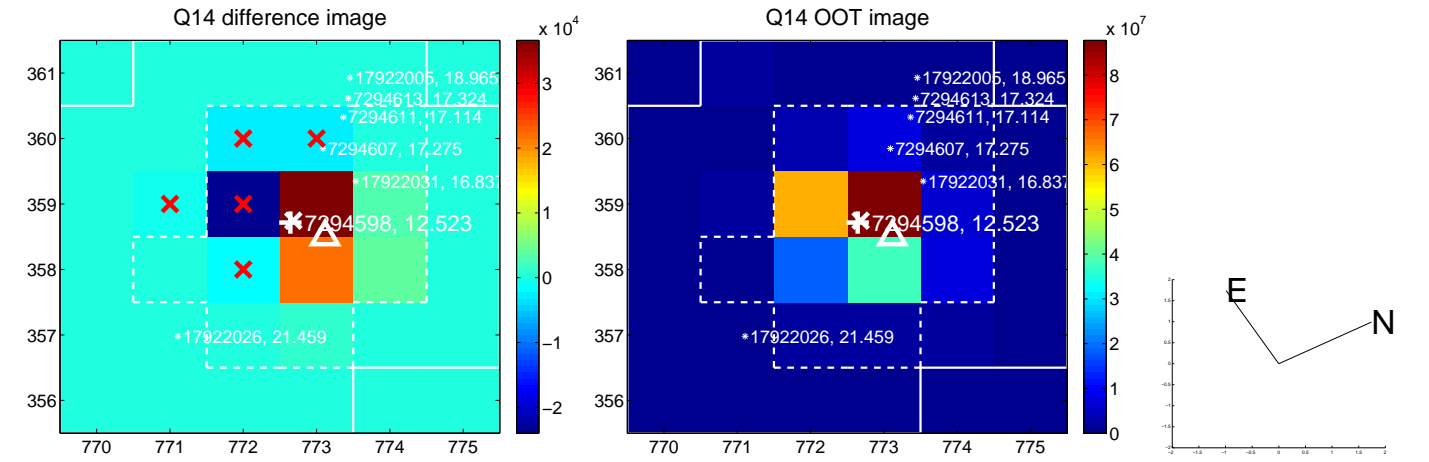
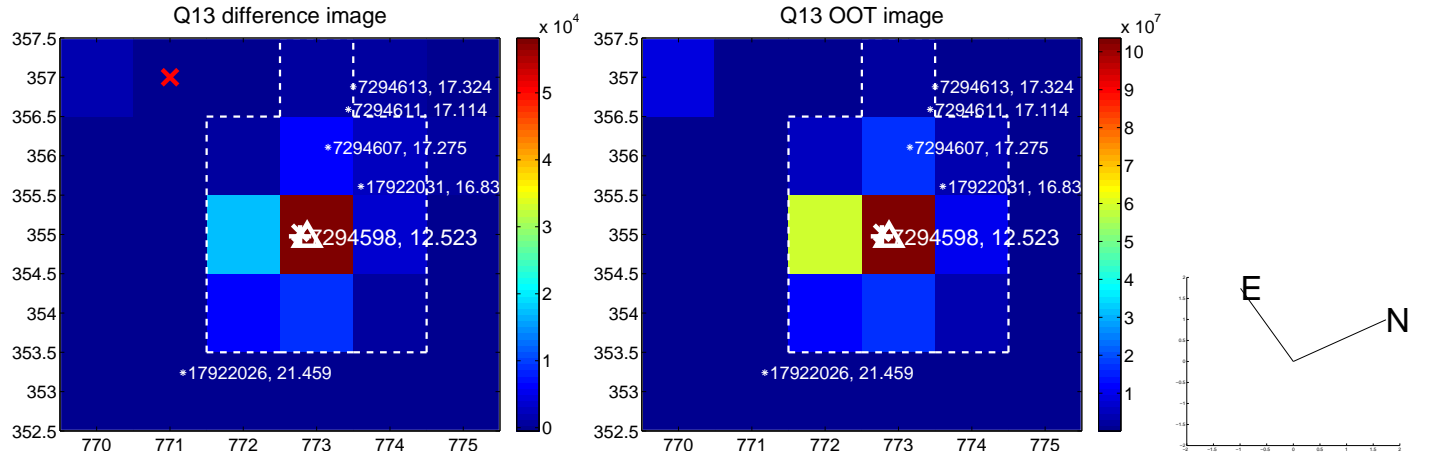
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



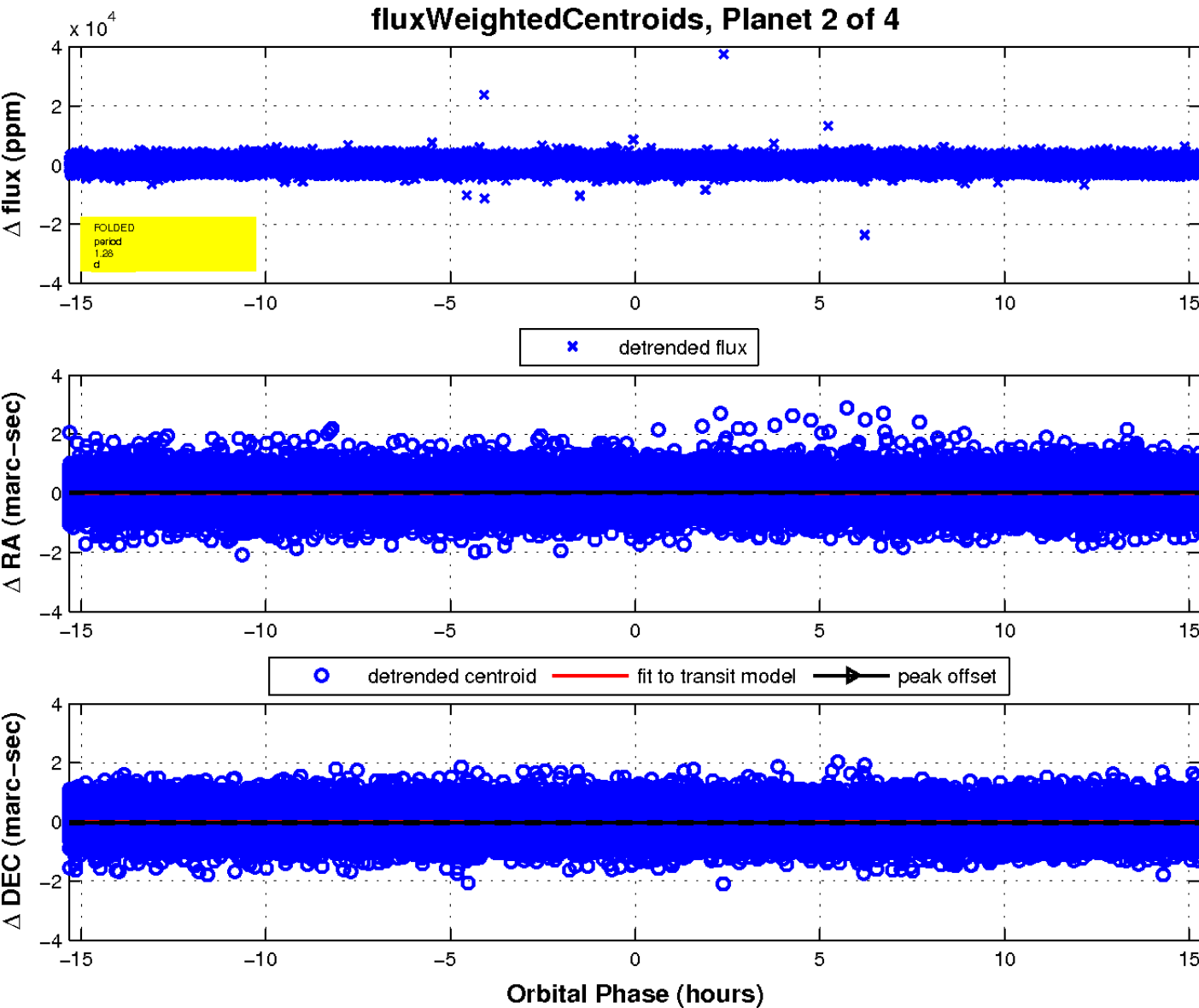
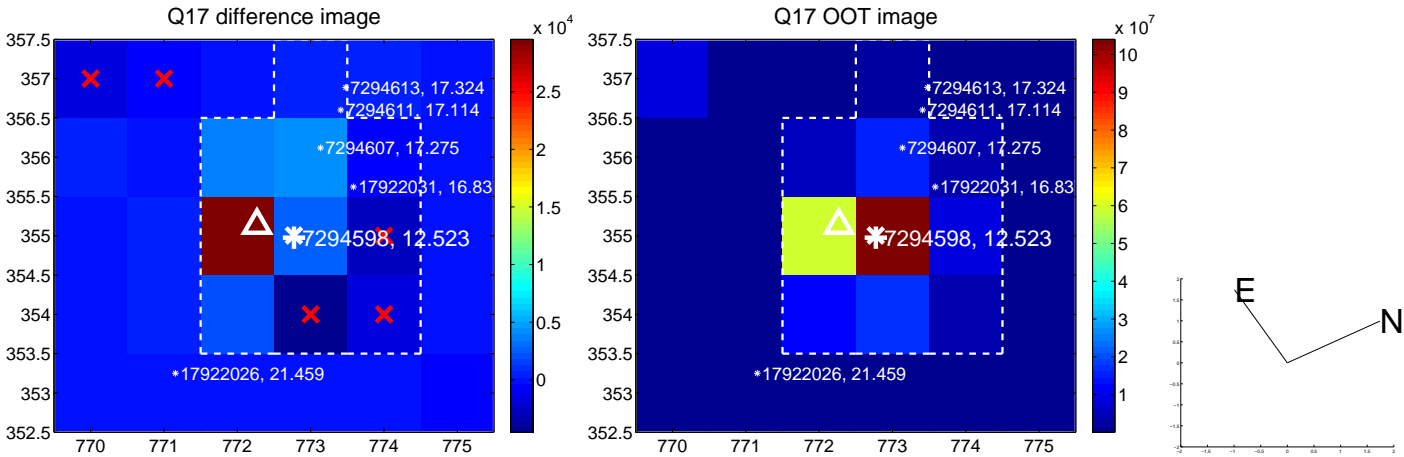
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

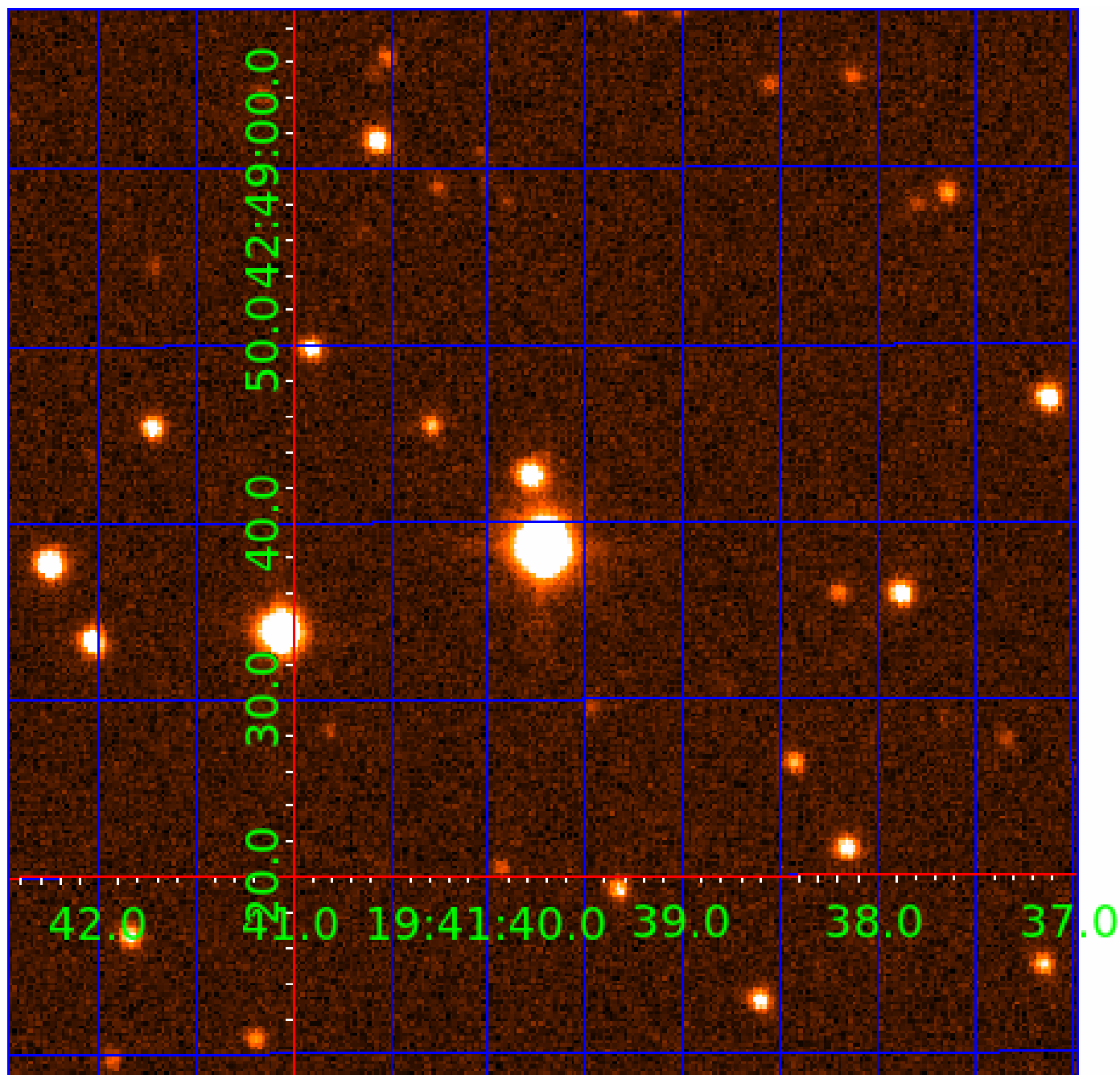


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007294598

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})
007294598-01	OBS	No	0.690626	131.514490	101.4	1.795	12.3	6.8	1.50	6961	1.74	16264.09
007294598-02	OBS	No	1.277121	131.928699	239.3	9.869	10.6	13.1	1.50	6961	2.36	7165.46
007294598-03	OBS	No	4.029502	133.129746	2468.7	0.946	15.5	18.4	1.50	6961	9.52	1548.41
007294598-04	OBS	No	3.321490	131.884438	865.3	3.716	8.9	11.6	1.50	6961	5.14	2003.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007294598-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT
007294598-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT
007294598-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
007294598-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV

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

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

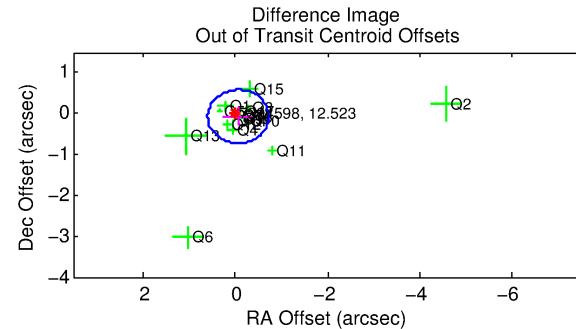
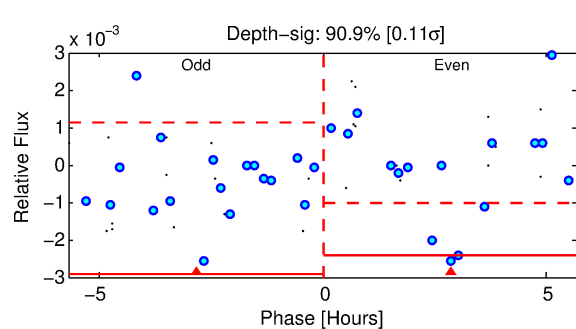
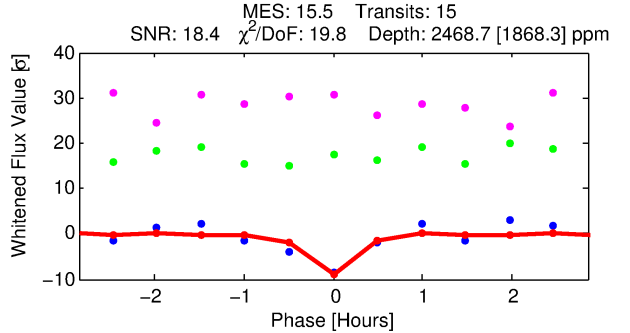
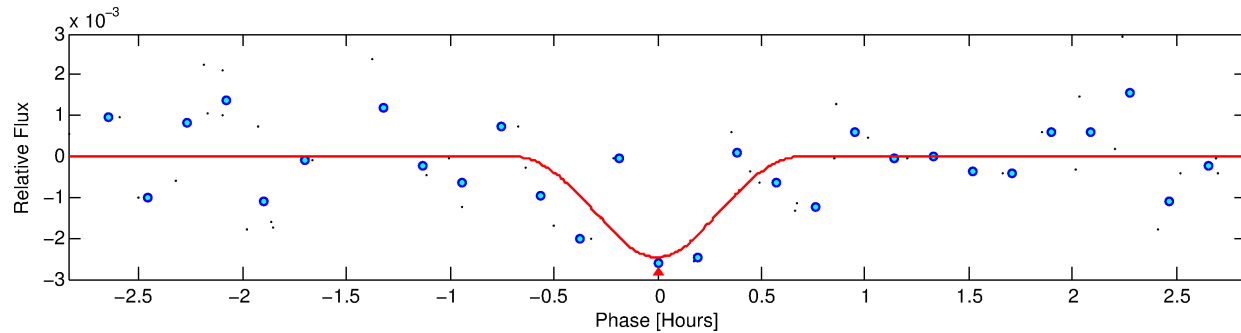
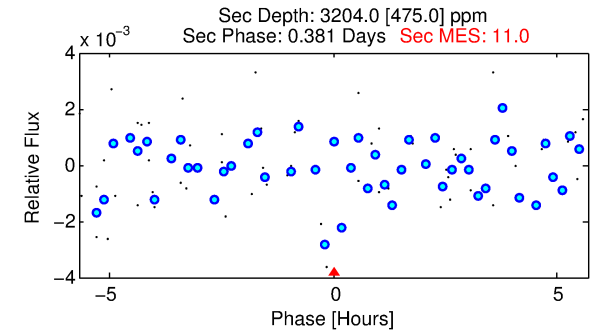
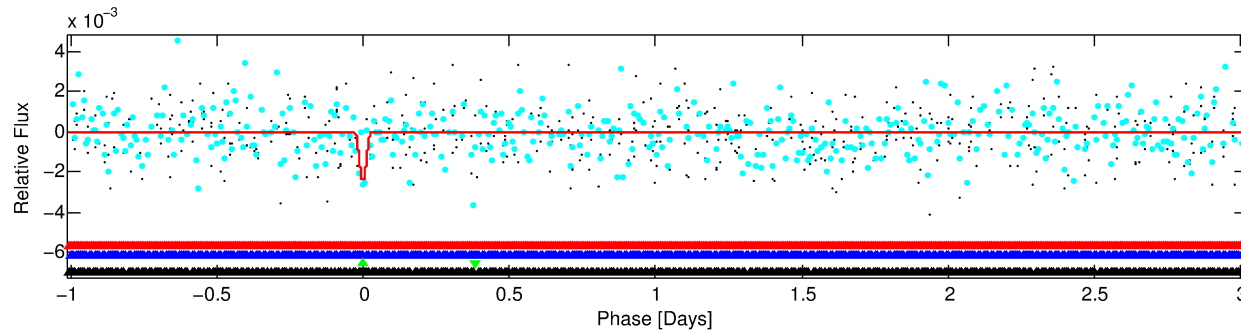
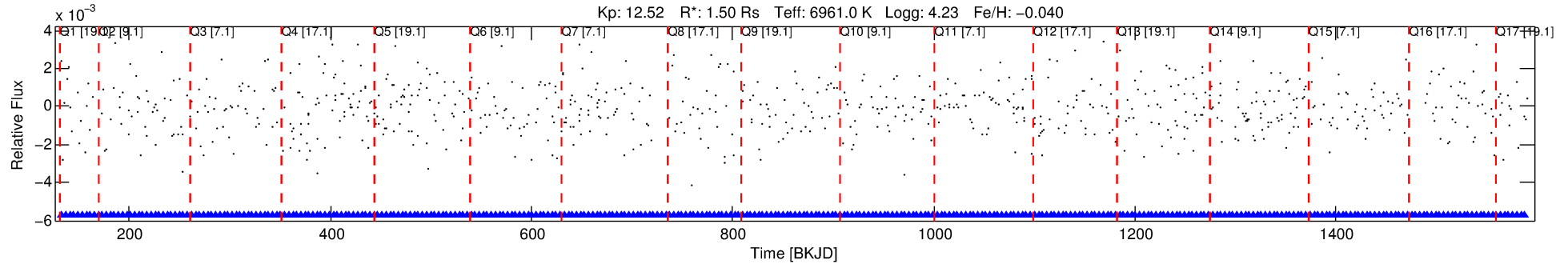
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007294598-03

No Significant Match Found

DV One-Page Summary

KIC: 7294598 Candidate: 3 of 4 Period: 4.030 d



DV Fit Results:

Period = 4.02950 [0.00003] d
Epoch = 133.1297 [0.0035] BKJD
Rp/R* = 0.0580 [0.1171]
a/R* = 15.76 [43.48]
b = 0.94 [0.53]
Seff = 1548.41 [640.40]
Teq = 1600 [165] K
Rp = 9.52 [19.45] Re
a = 0.0554 [0.0149] AU
Ag = 59.69 [242.09] [0.24σ]
Teffp = 6874 [6942] K [0.76σ]

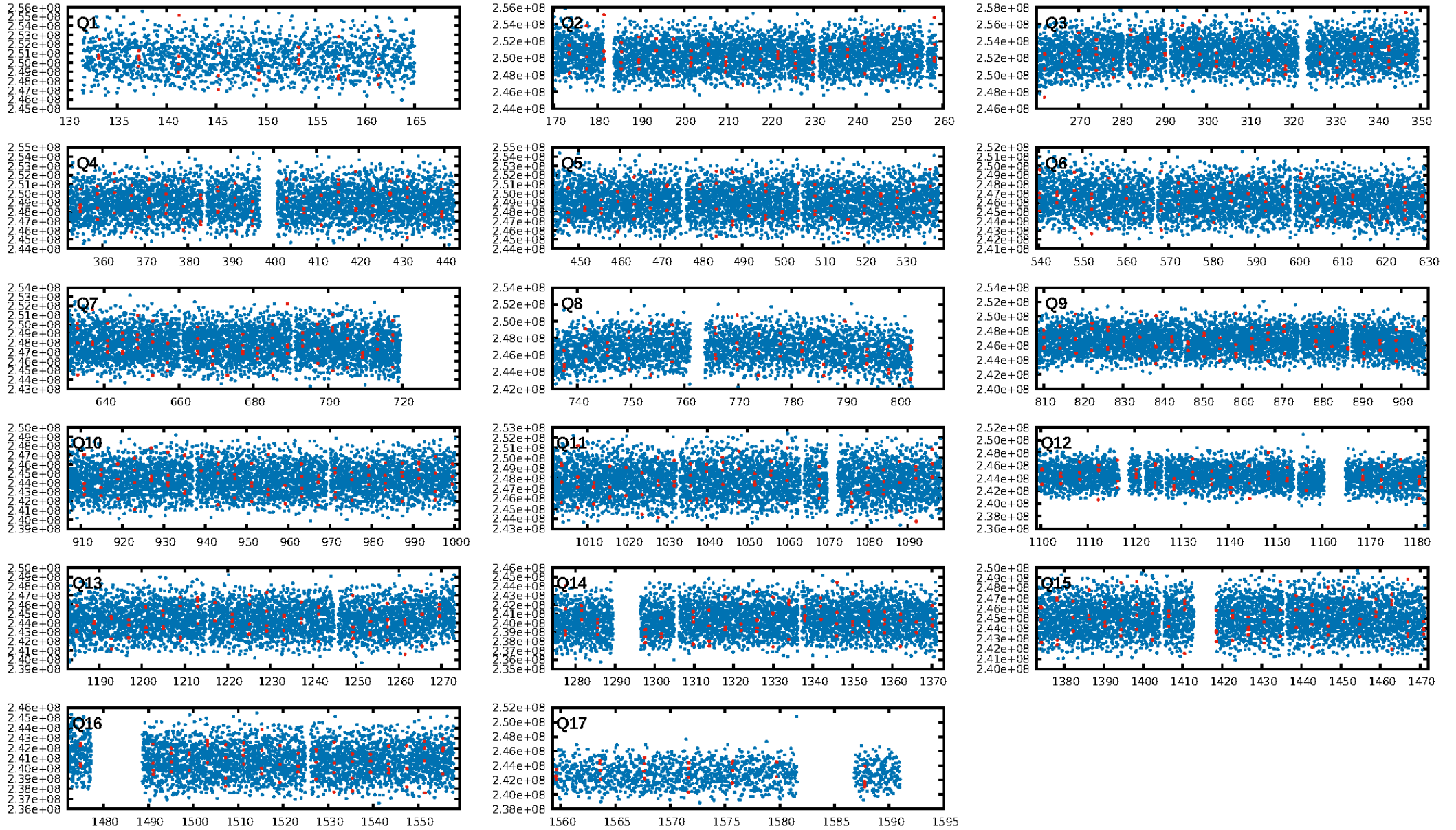
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [4.43σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [15/15]
GhostDiagnostic-chr: 0.2629
Centroid-sig: 91.8%
Centroid-so: 0.027 arcsec [1.21σ]
OotOffset-rm: 0.096 arcsec [0.44σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.183 arcsec [0.85σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.59 [10/17]
DiffImageOverlap-fno: 0.53 [9/17]

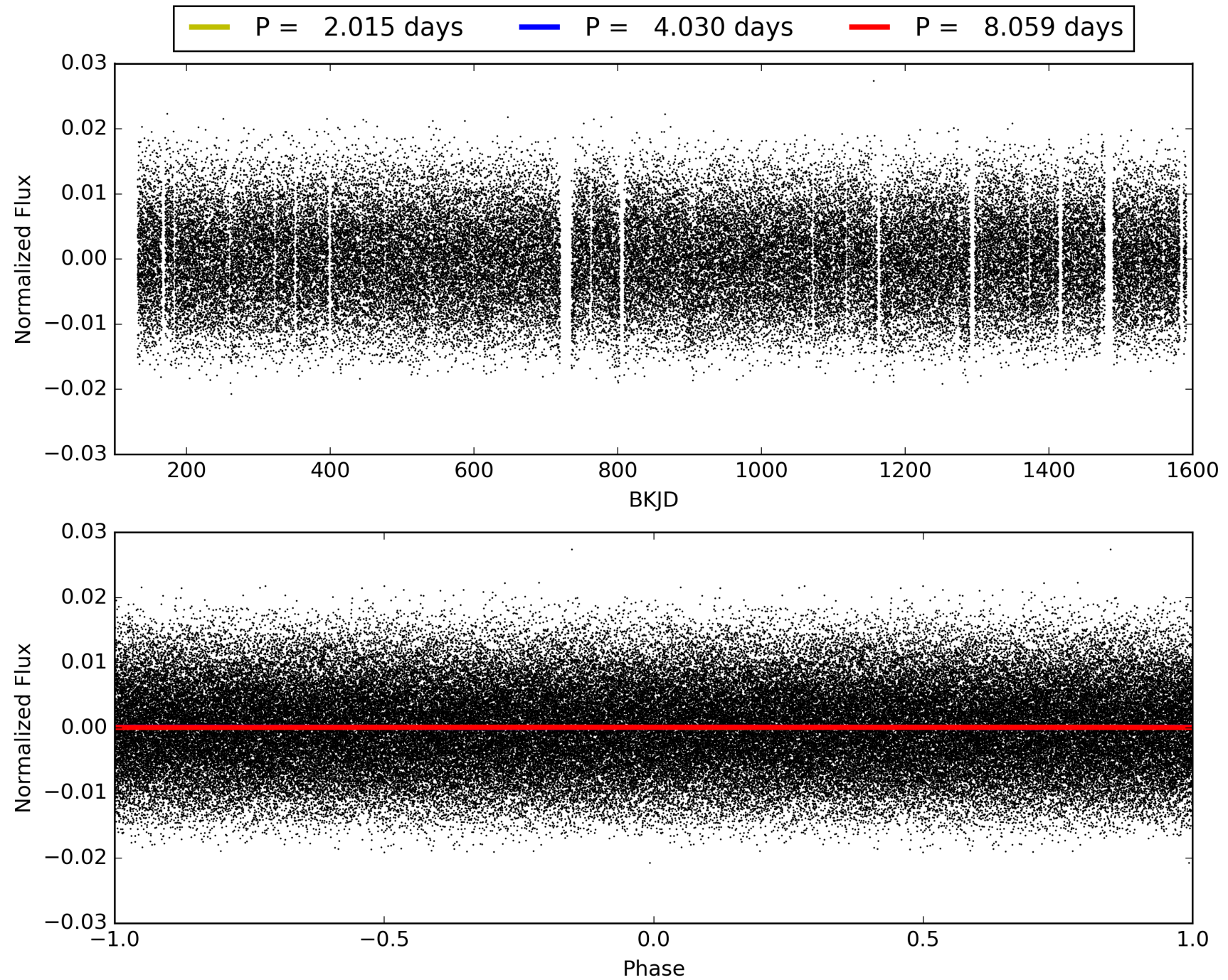
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:07:52 Z

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

TCE 007294598-03, PDC Light Curves

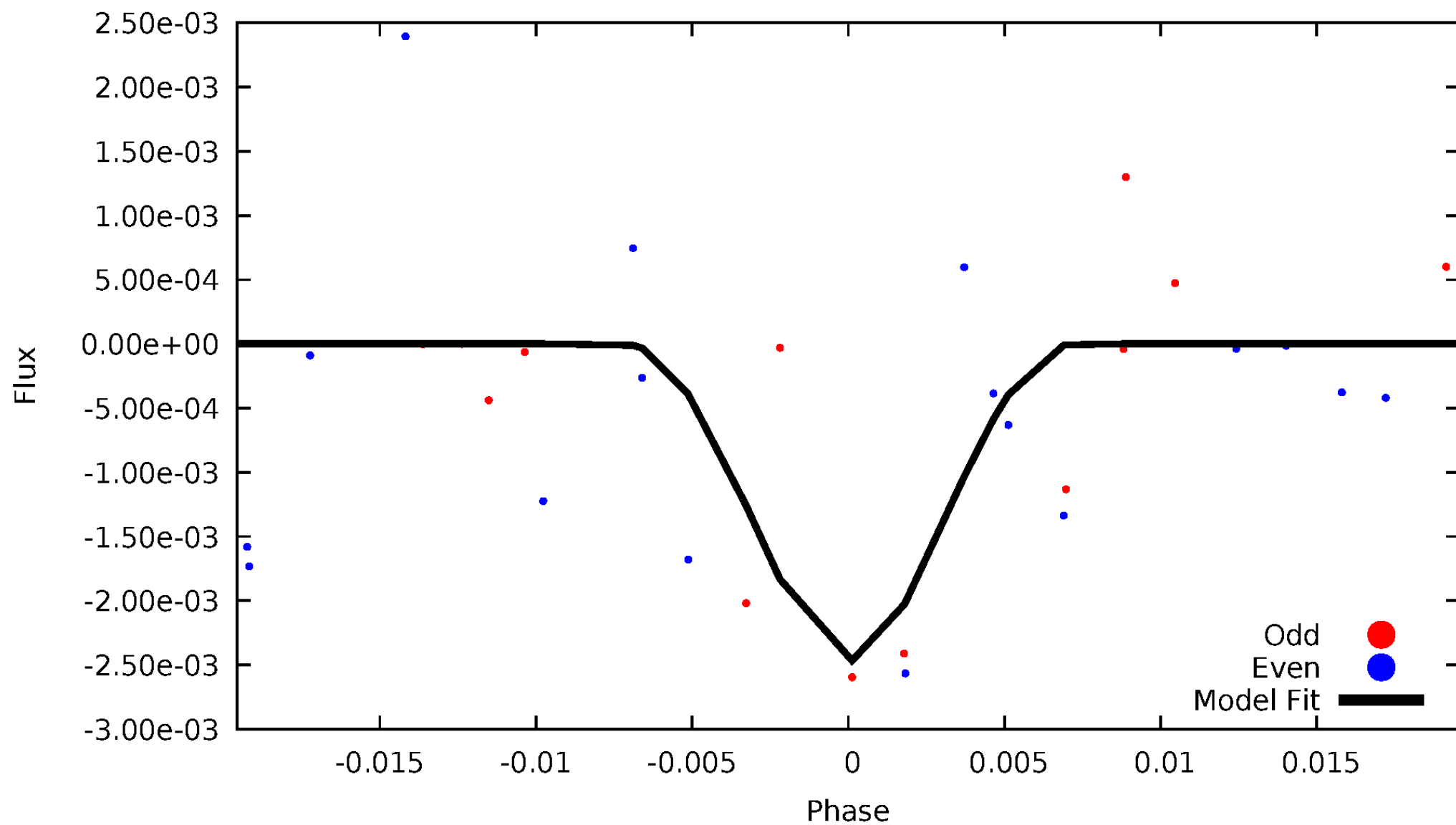


TCE 007294598-03



DV Odd/Even

TCE 007294598-03

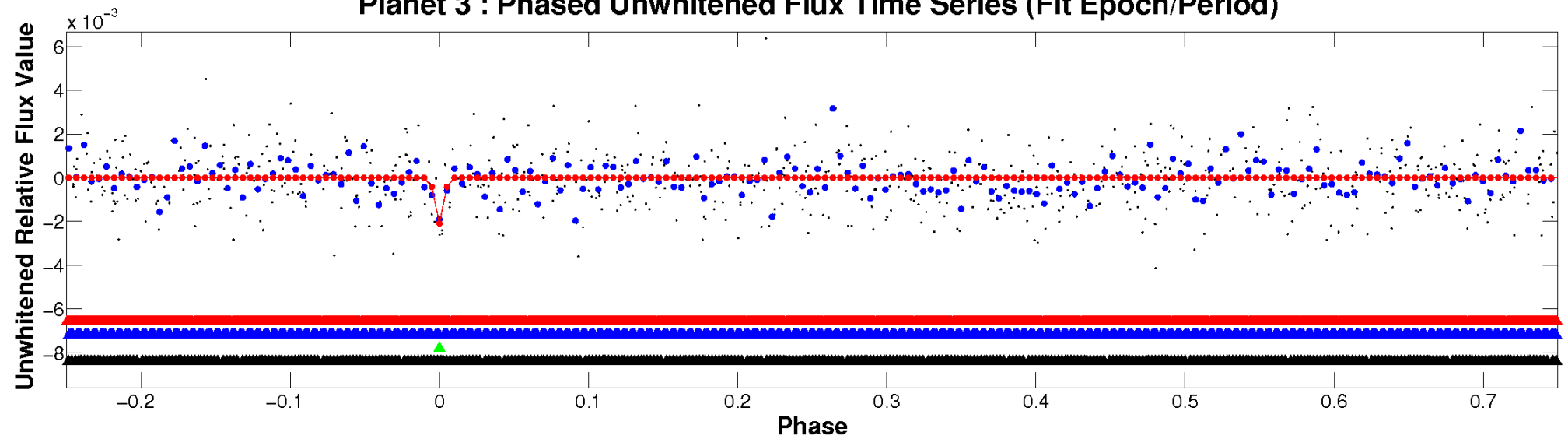


ALT Odd/Even

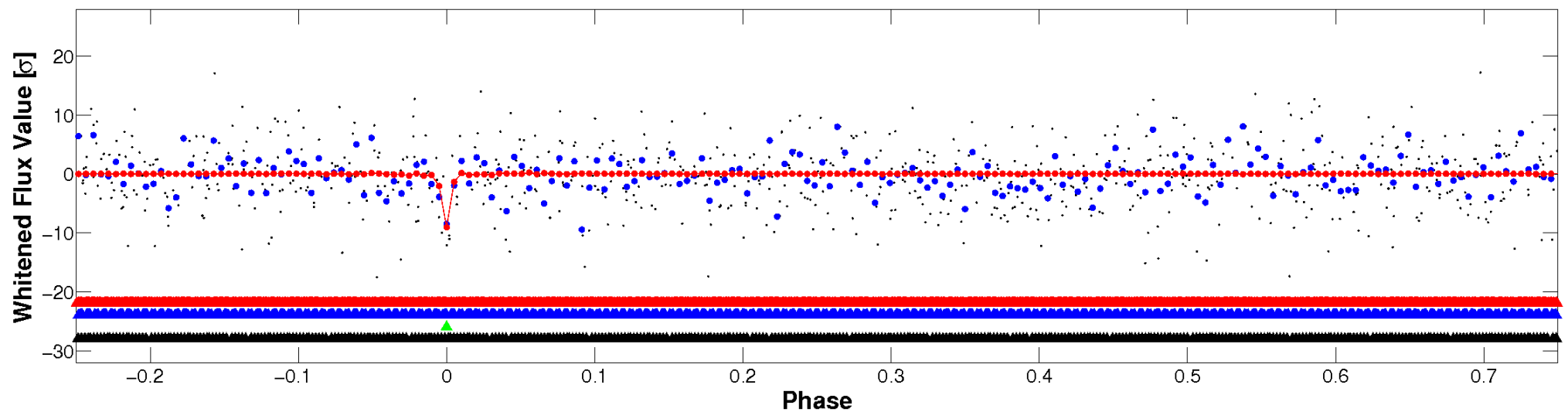
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

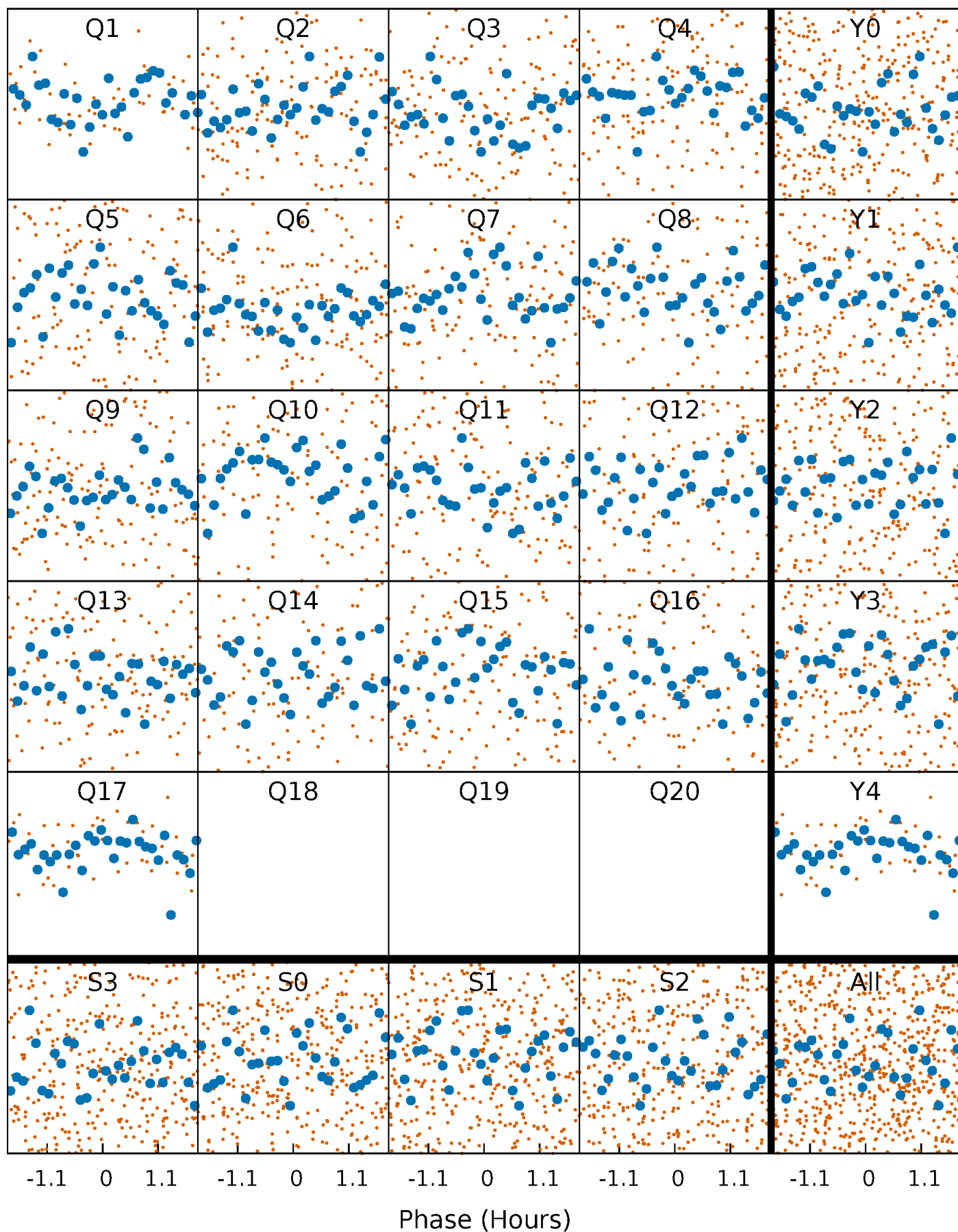


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



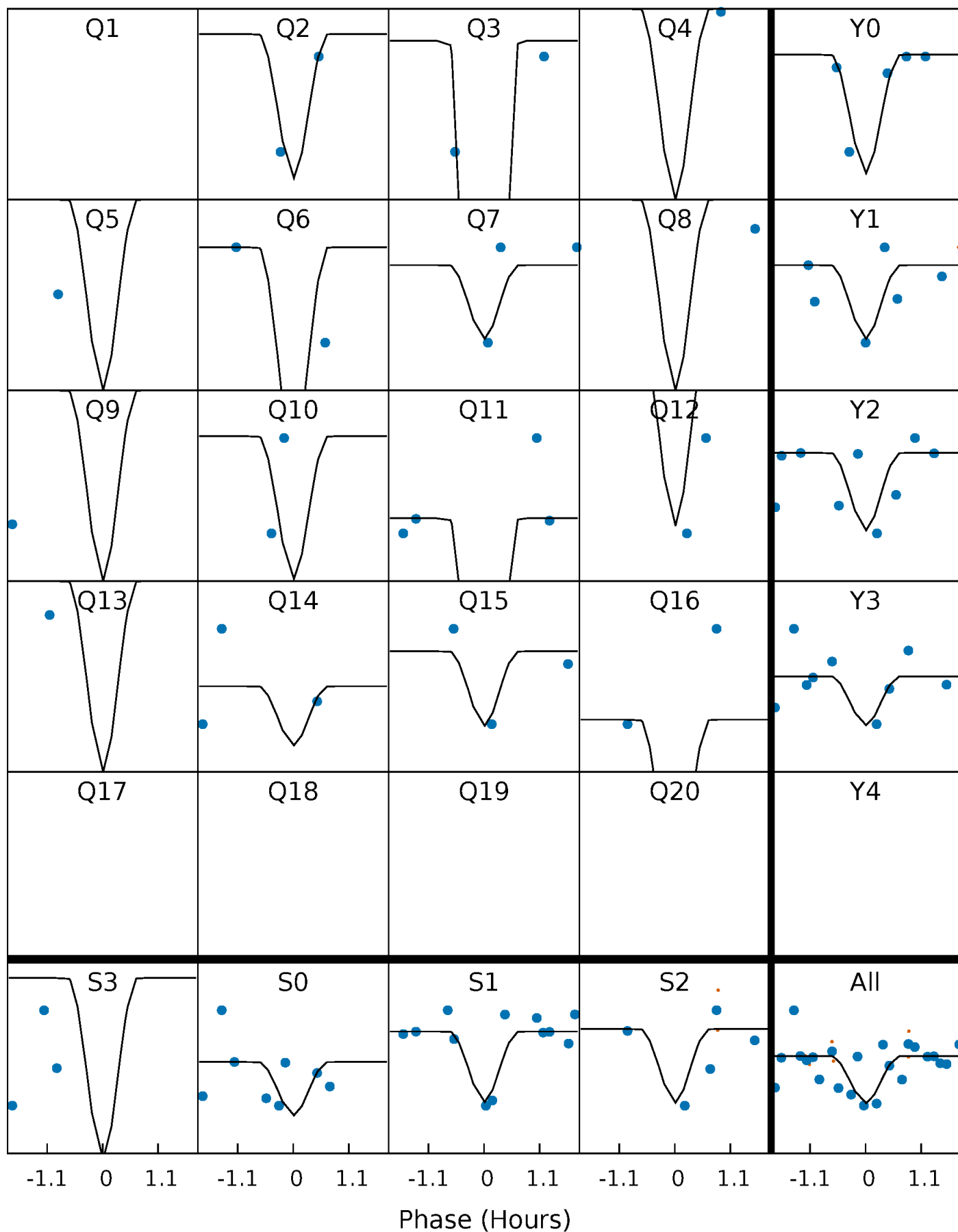
PDC Quarter-Phased Transit Curves

TCE 007294598-03 P= 4.029502 Days $T_0=133.129746$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007294598-03 P= 4.029502 Days $T_0=133.129746$ (BKJD)

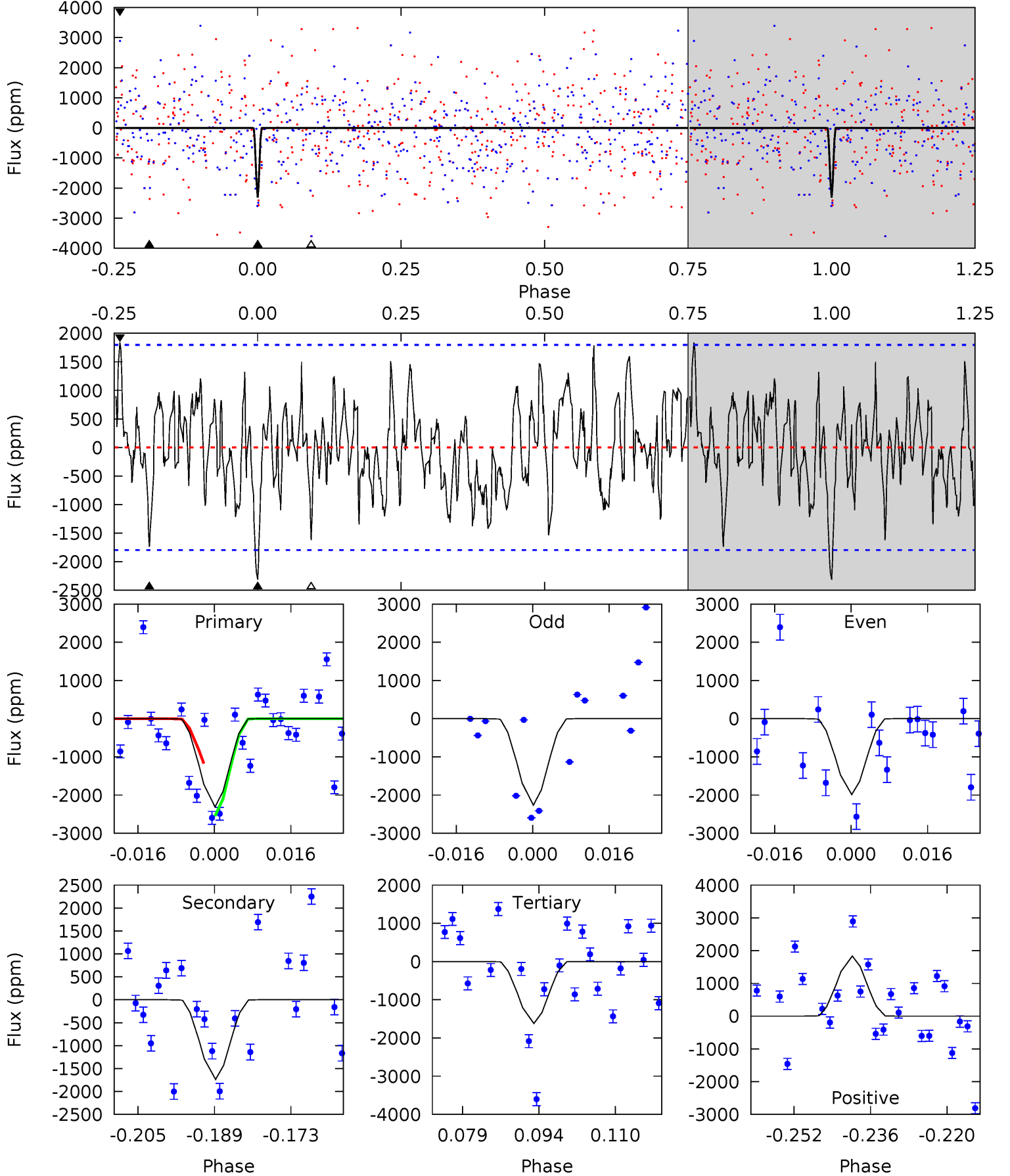


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007294598-03, P = 4.029502 Days, E = 129.100244 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.36	4.78	4.46	5.05	4.94	2.42	1.80	1.90	1.31	0.32	-0.27	0.38	1.00	0.44	1.80



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007294598

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6961^{+166}_{-249}	$4.229^{+0.090}_{-0.210}$	$-0.040^{+0.250}_{-0.350}$	$1.503^{+0.487}_{-0.262}$	$1.401^{+0.202}_{-0.202}$	$0.581^{+0.281}_{-0.299}$
	+2%/-4%	+2%/-5%	+625%/-875%	+32%/-17%	+14%/-14%	+48%/-51%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 007294598-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-1738 ± 364	$17.81^{+17.44}_{-12.25}$	2281^{+182}_{-130}	4497^{+3325}_{-992}	$9.194^{+78.671}_{-6.785}$
Alt.	N/A	N/A	N/A	N/A	N/A

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 $A_{obs} \gg 1.0$

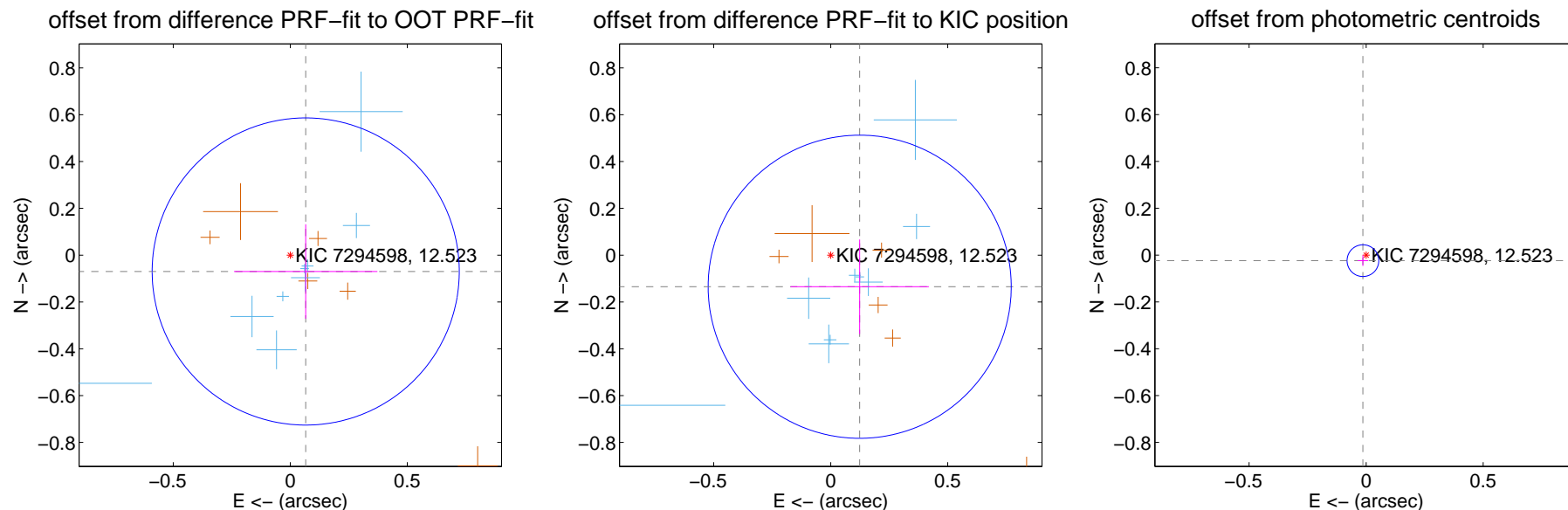
DV Centroid Data

Supplemental centroid analysis for 007294598-03. Kepler magnitude: 12.52. Transit SNR 18.36

There are 10 quarters with good PRF difference image offsets

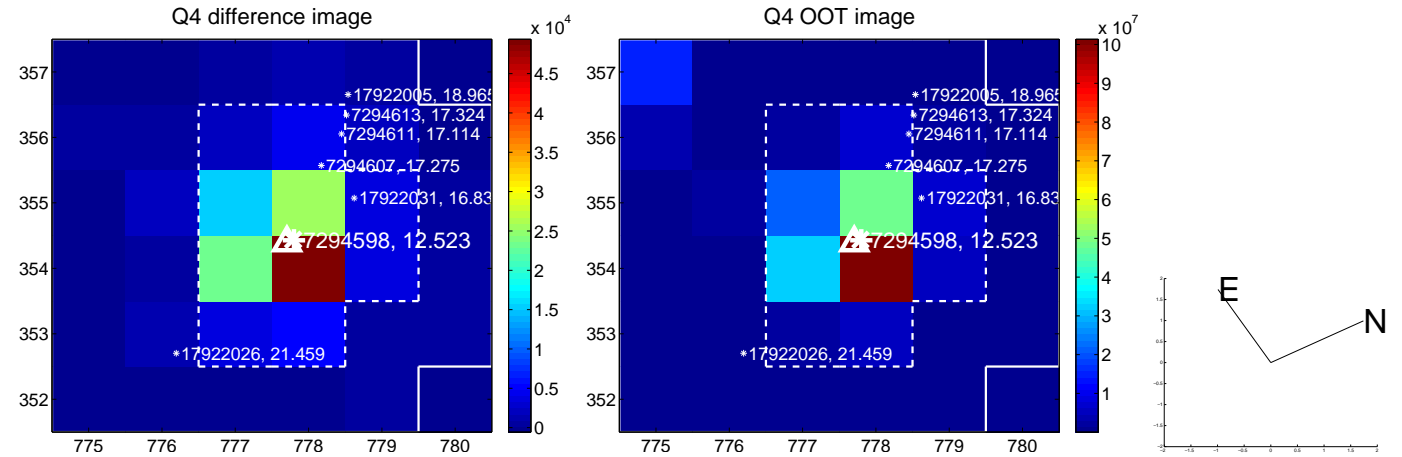
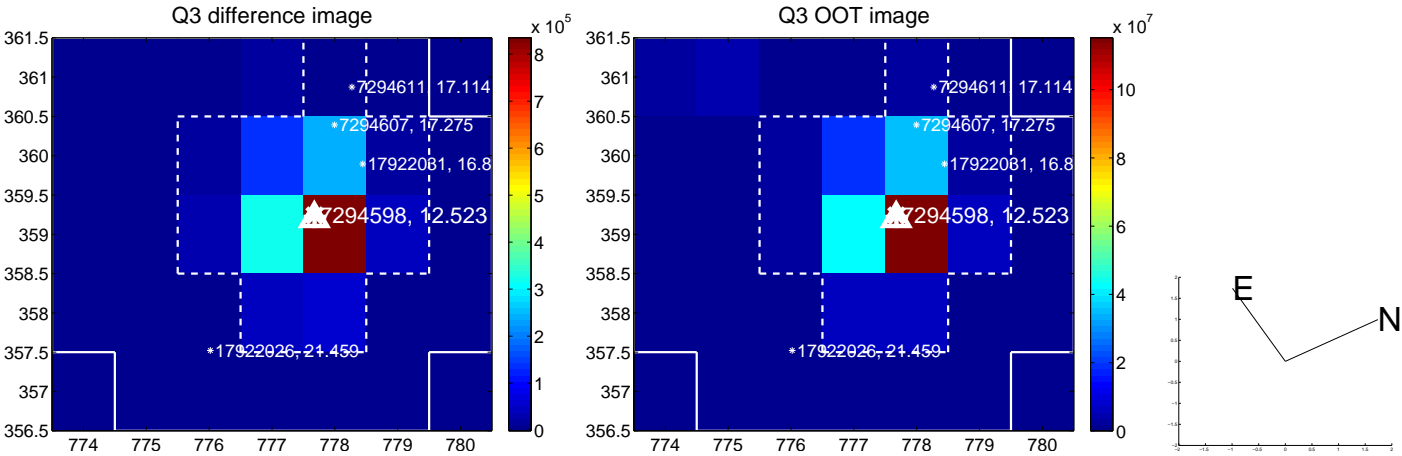
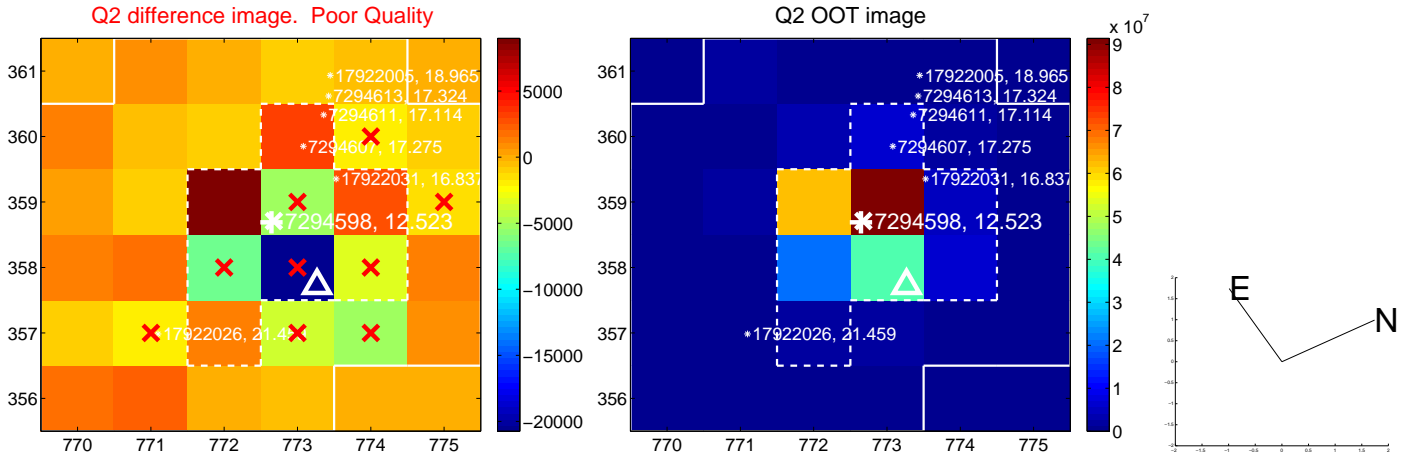
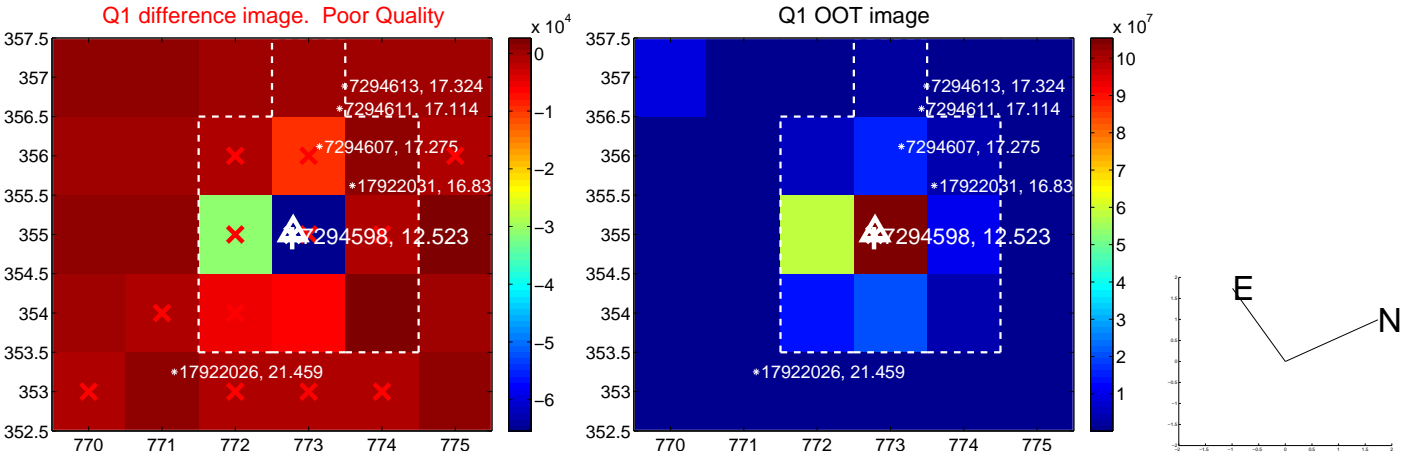
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.096 ± 0.219	0.44	-0.066 ± 0.307	-0.070 ± 0.202
PRF-fit source offset from KIC position	0.183 ± 0.216	0.85	-0.124 ± 0.296	-0.135 ± 0.202
photometric centroid source offset	0.03 ± 0.02	1.21	0.01 ± 0.02	-0.02 ± 0.02

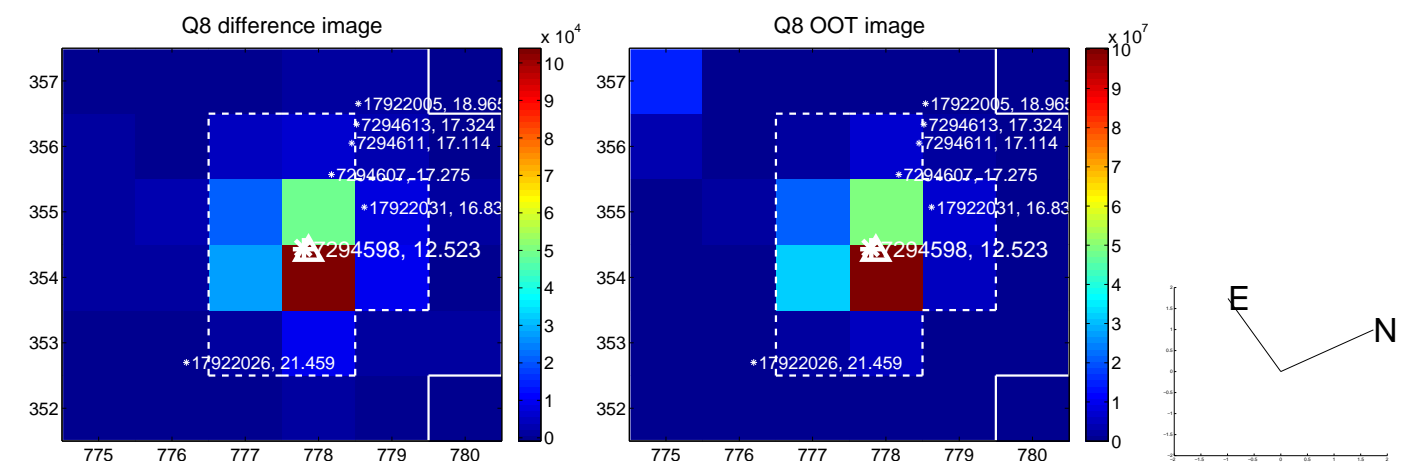
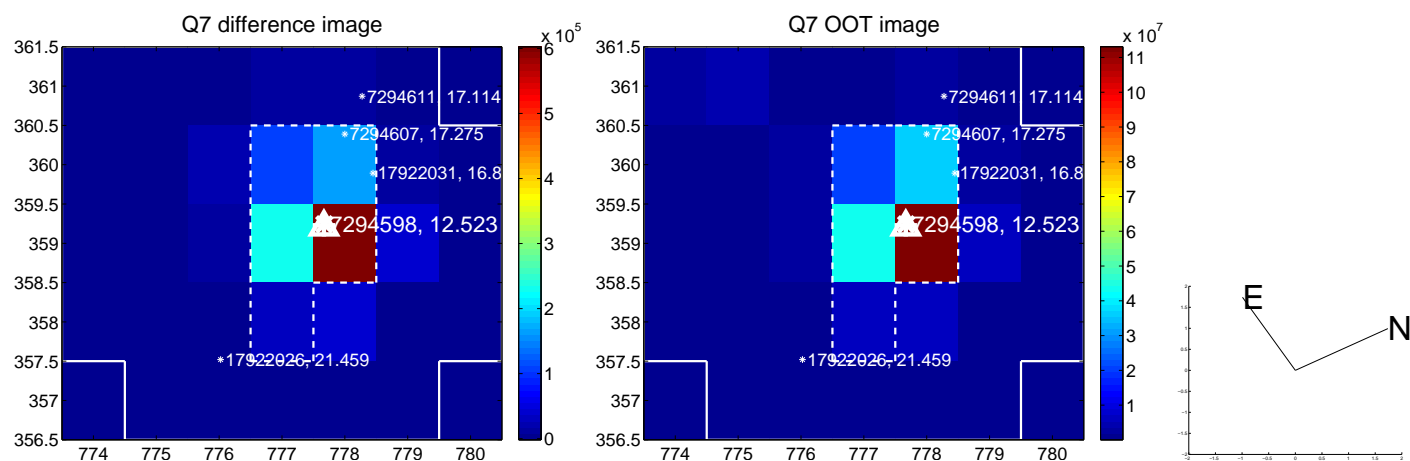
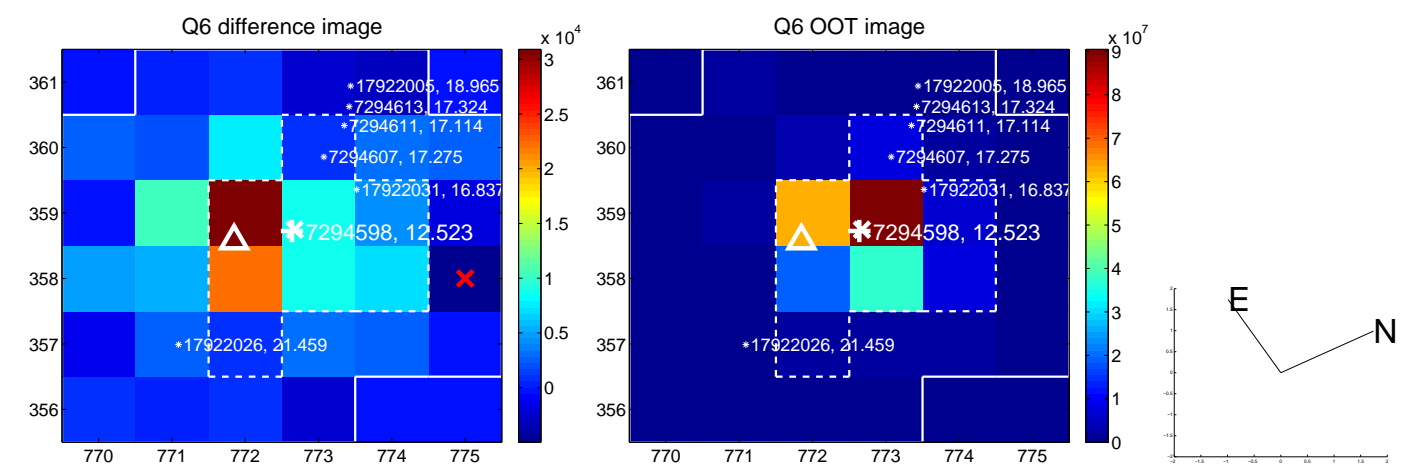
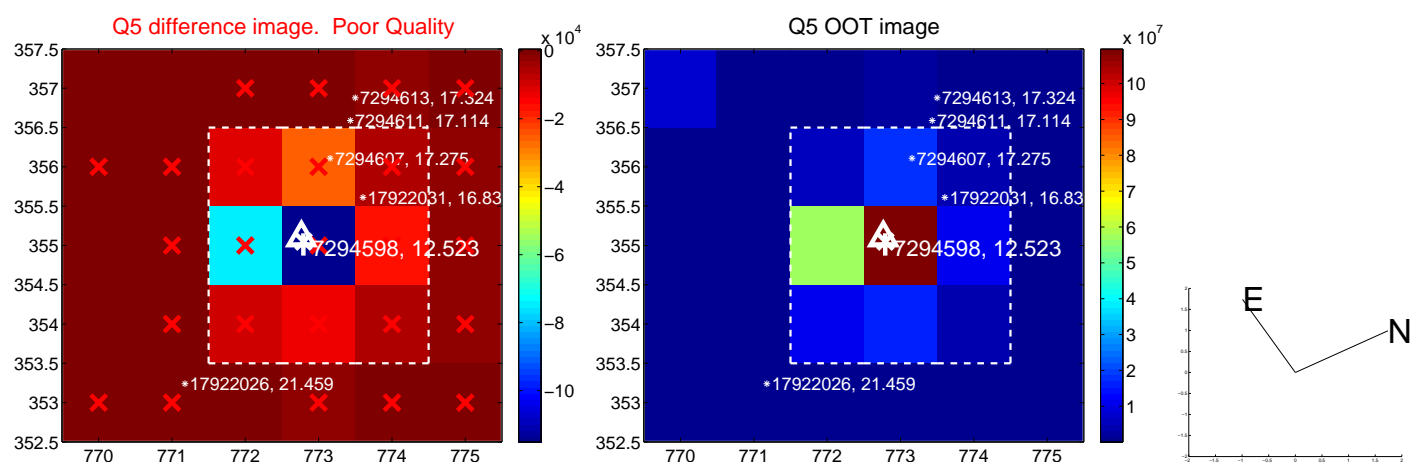


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

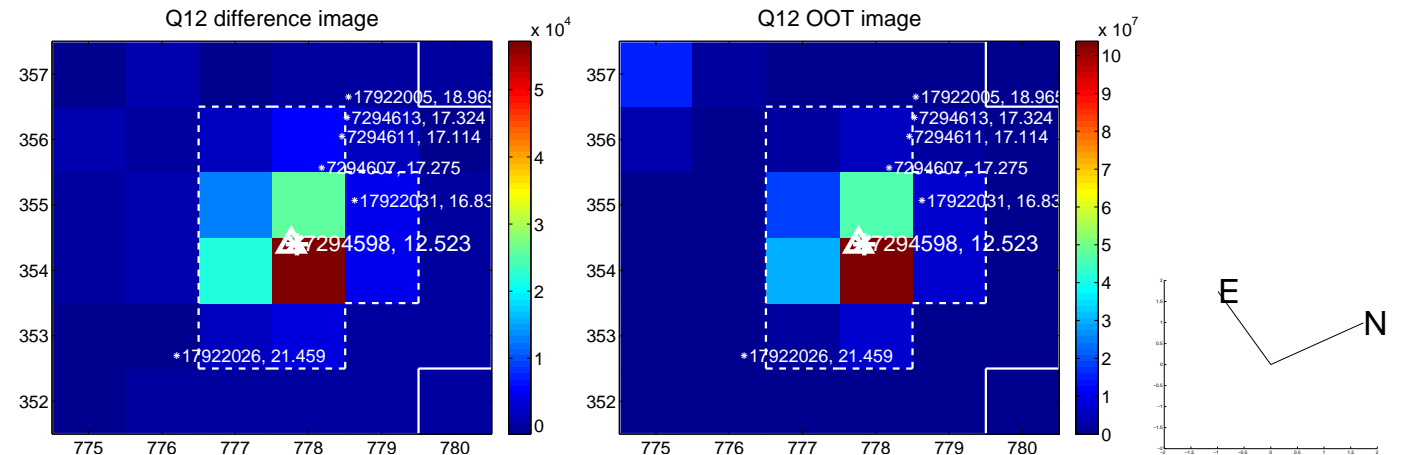
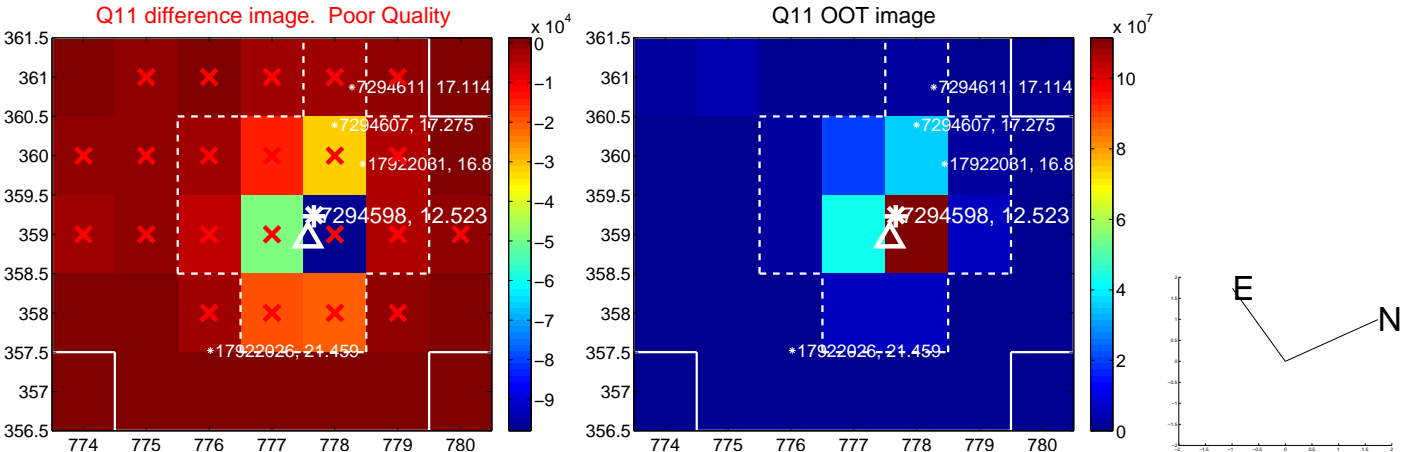
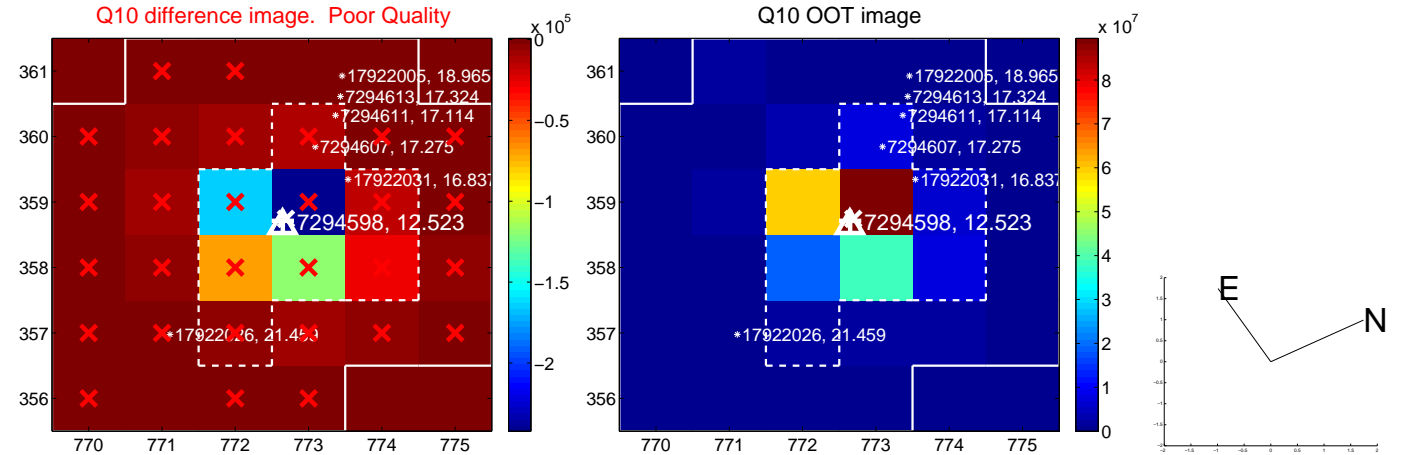
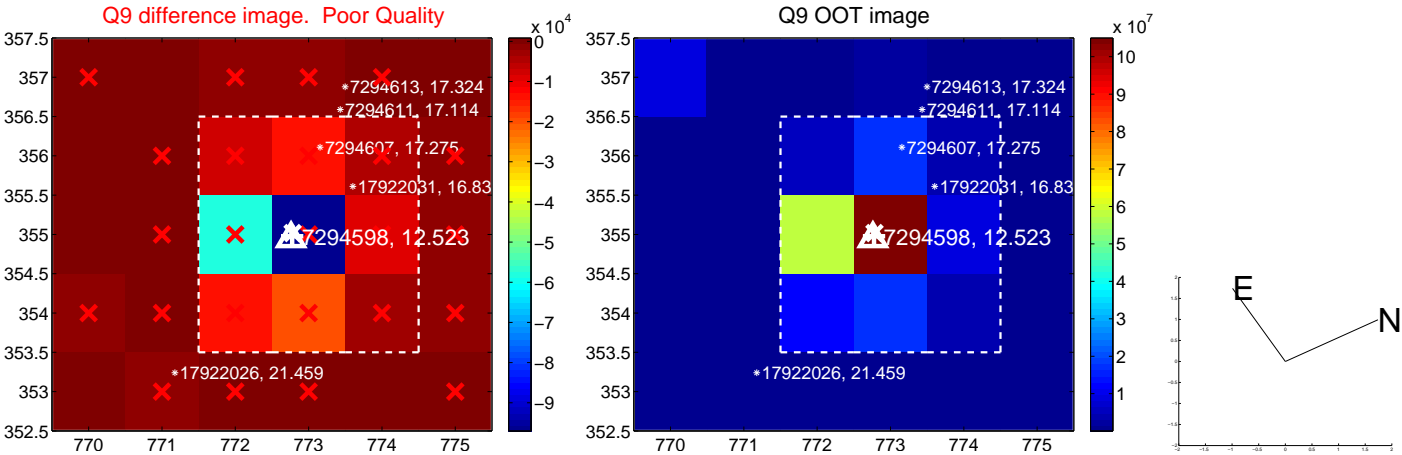
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



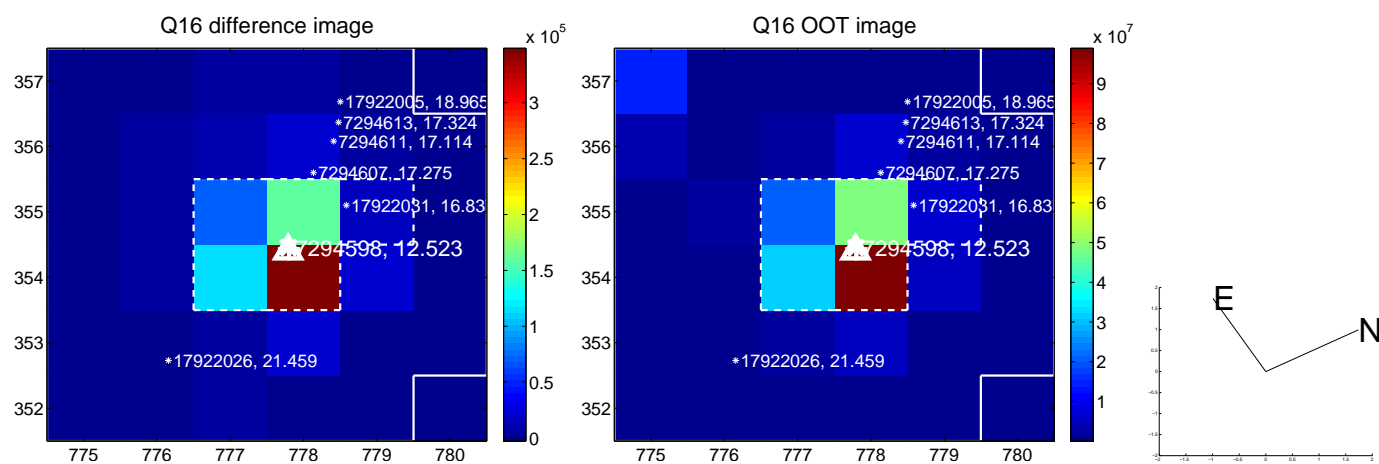
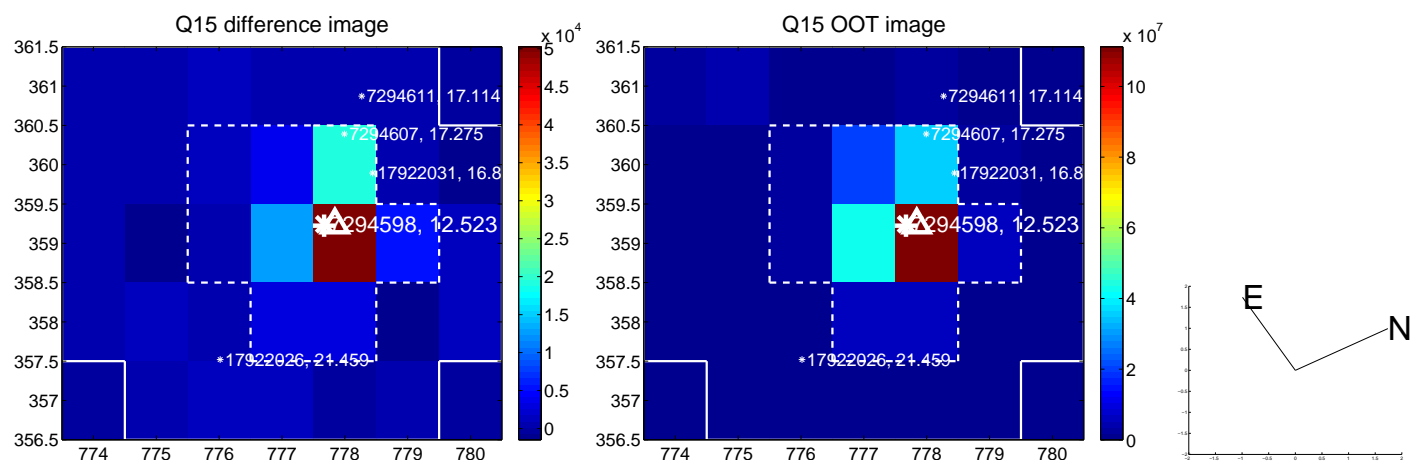
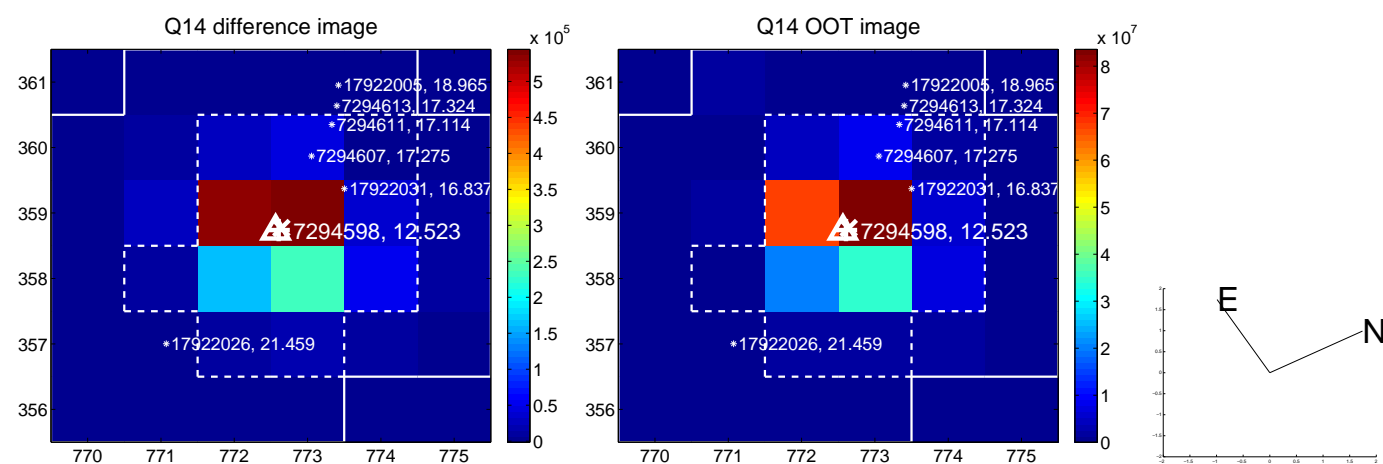
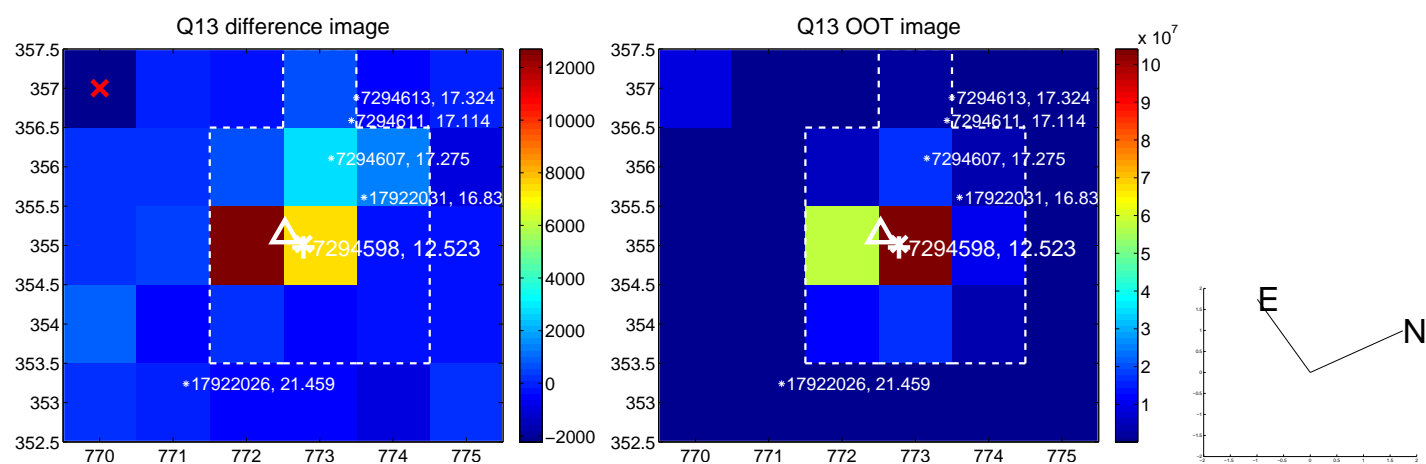
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



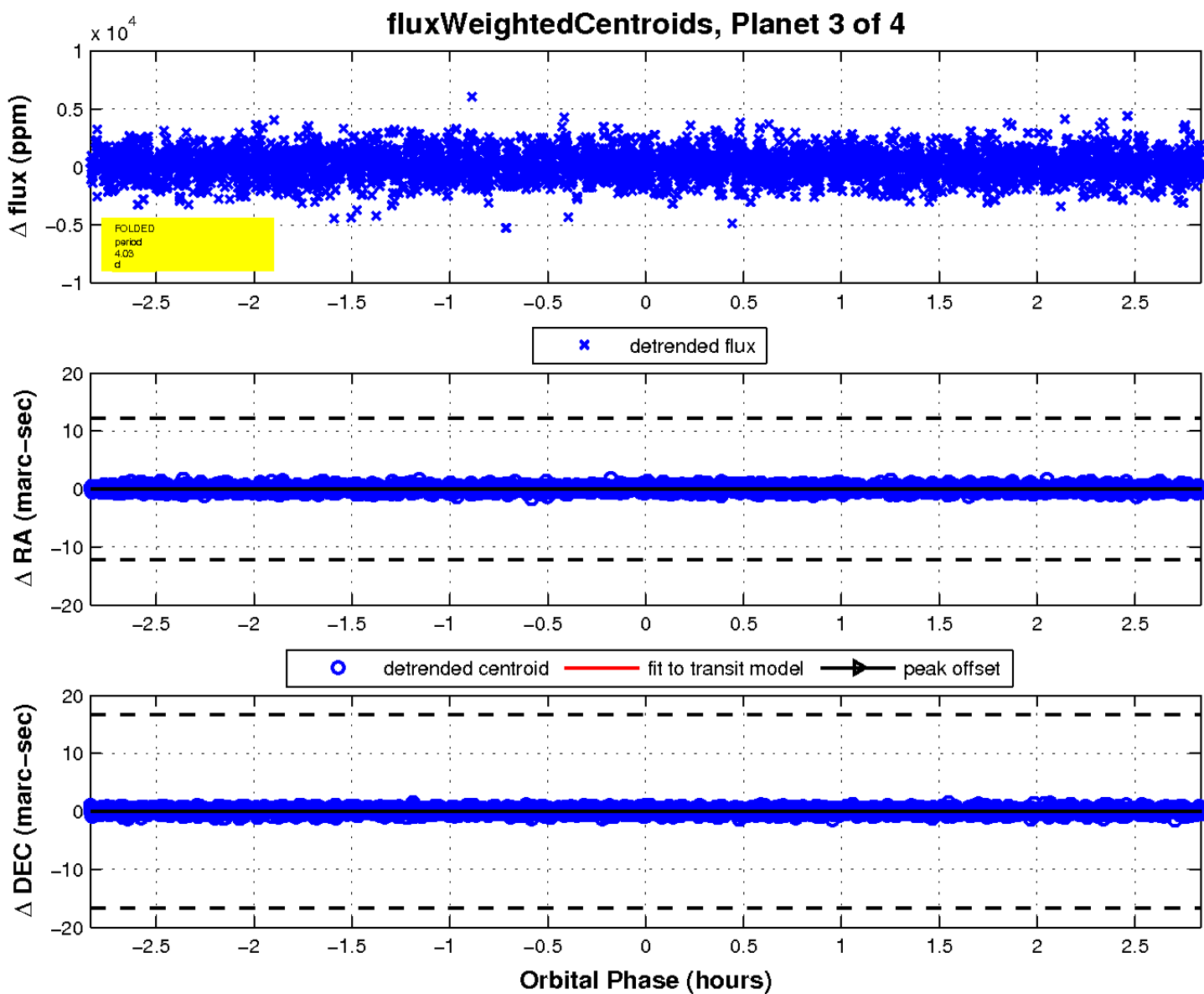
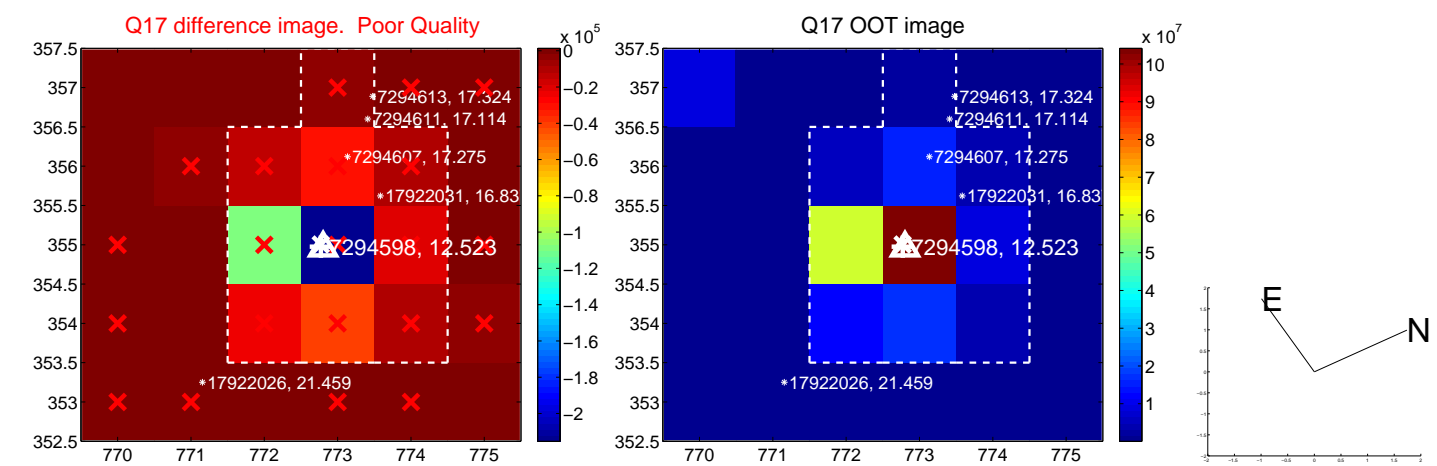
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

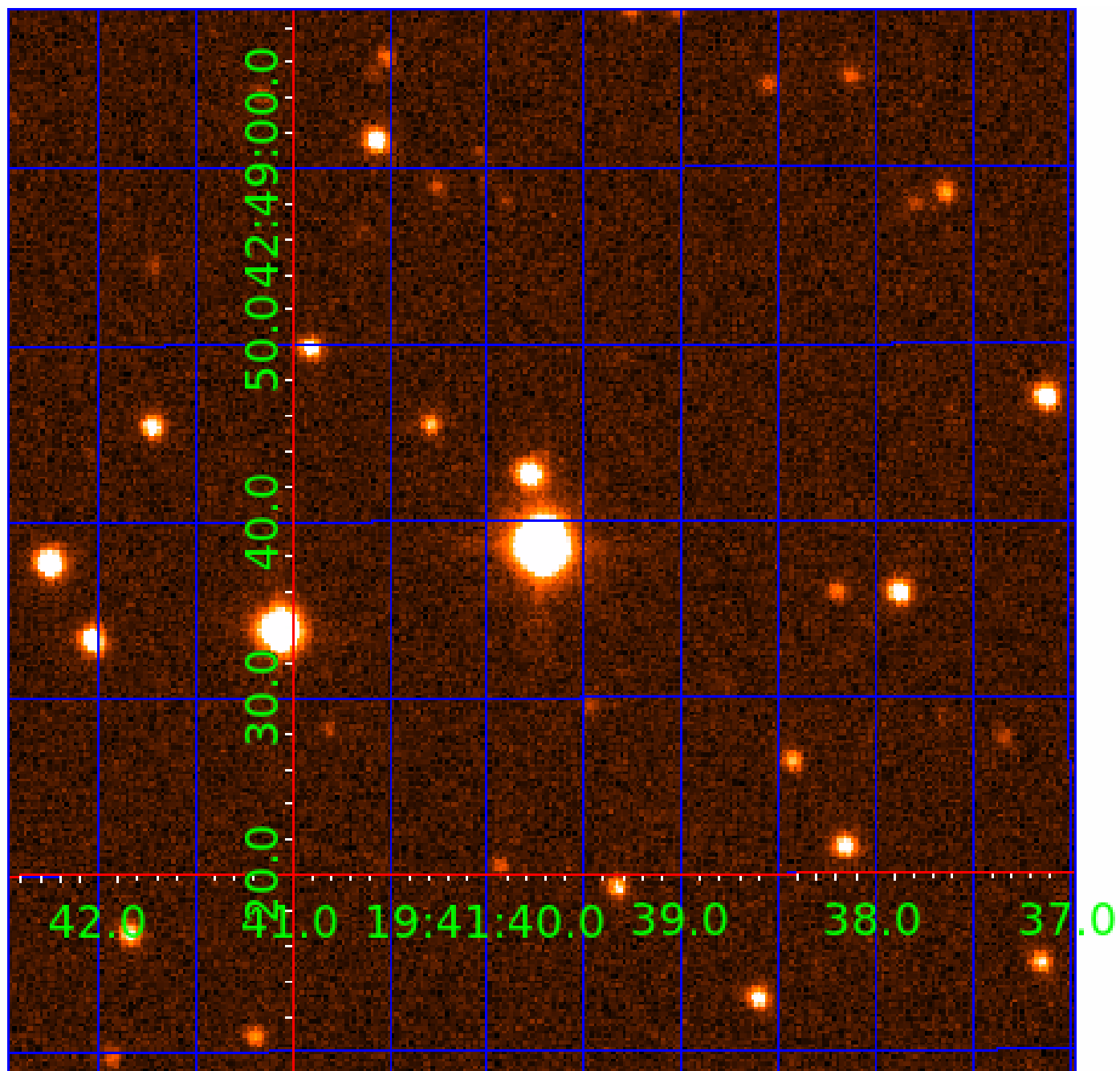


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007294598

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})
007294598-01	OBS	No	0.690626	131.514490	101.4	1.795	12.3	6.8	1.50	6961	1.74	16264.09
007294598-02	OBS	No	1.277121	131.928699	239.3	9.869	10.6	13.1	1.50	6961	2.36	7165.46
007294598-03	OBS	No	4.029502	133.129746	2468.7	0.946	15.5	18.4	1.50	6961	9.52	1548.41
007294598-04	OBS	No	3.321490	131.884438	865.3	3.716	8.9	11.6	1.50	6961	5.14	2003.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007294598-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT
007294598-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—LPP_ALT
007294598-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV
007294598-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV

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

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

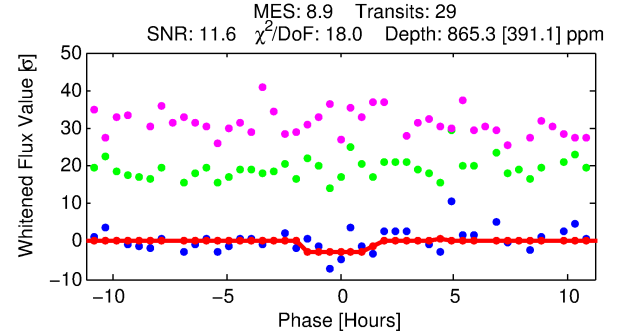
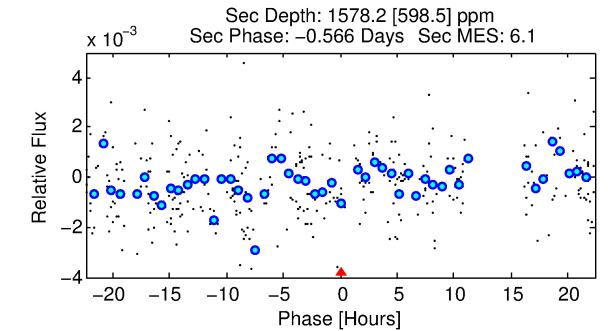
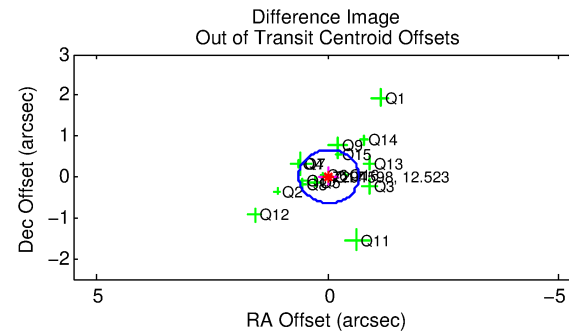
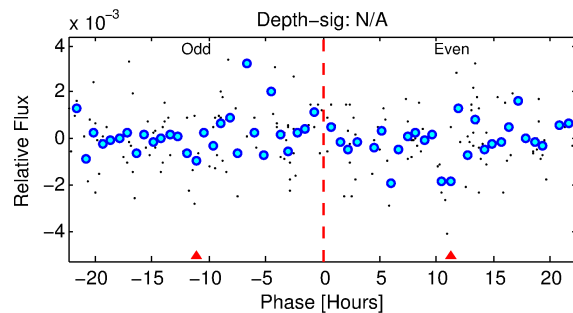
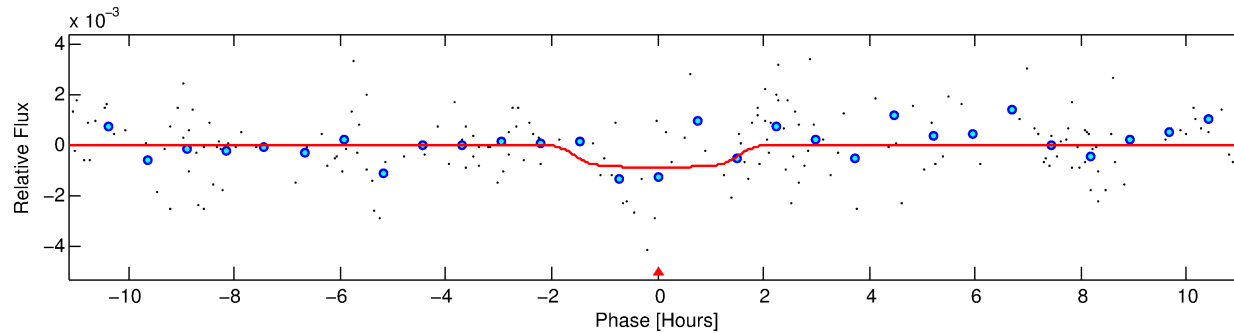
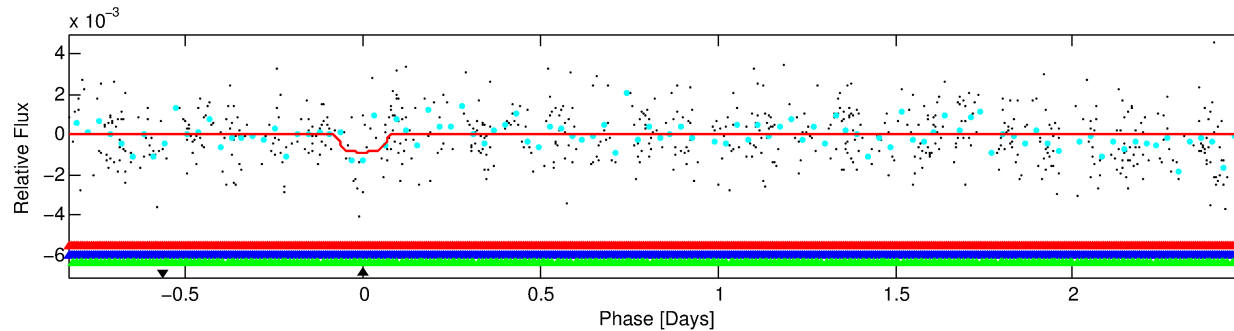
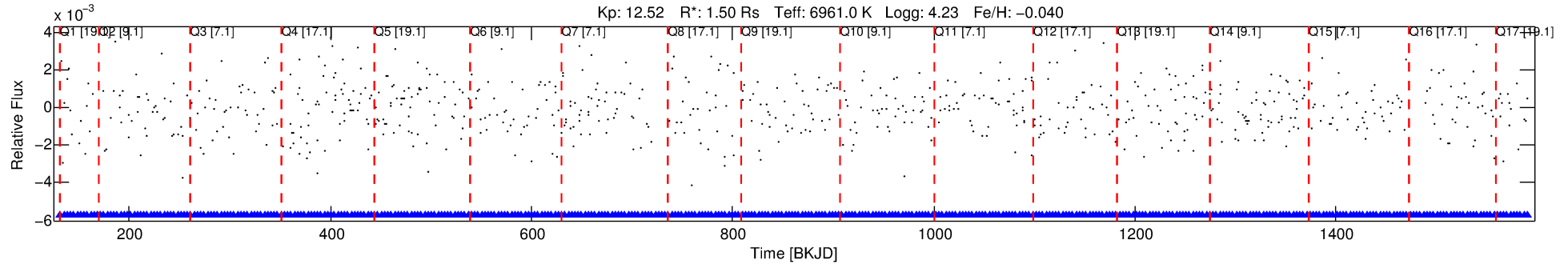
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007294598-04

No Significant Match Found

DV One-Page Summary

KIC: 7294598 Candidate: 4 of 4 Period: 3.321 d



DV Fit Results:

Period = 3.32149 [0.00009] d
Epoch = 131.8844 [0.0312] BKJD
Rp/R* = 0.0314 [0.0175]
a/R* = 3.57 [8.76]
b = 0.90 [0.60]
Seff = 2003.44 [828.59]
Teq = 1706 [176] K
Rp = 5.15 [3.32] Re
a = 0.0487 [0.0131] AU
Ag = 77.80 [96.50] [0.80σ]
Teffp = 7833 [2324] K [2.63σ]

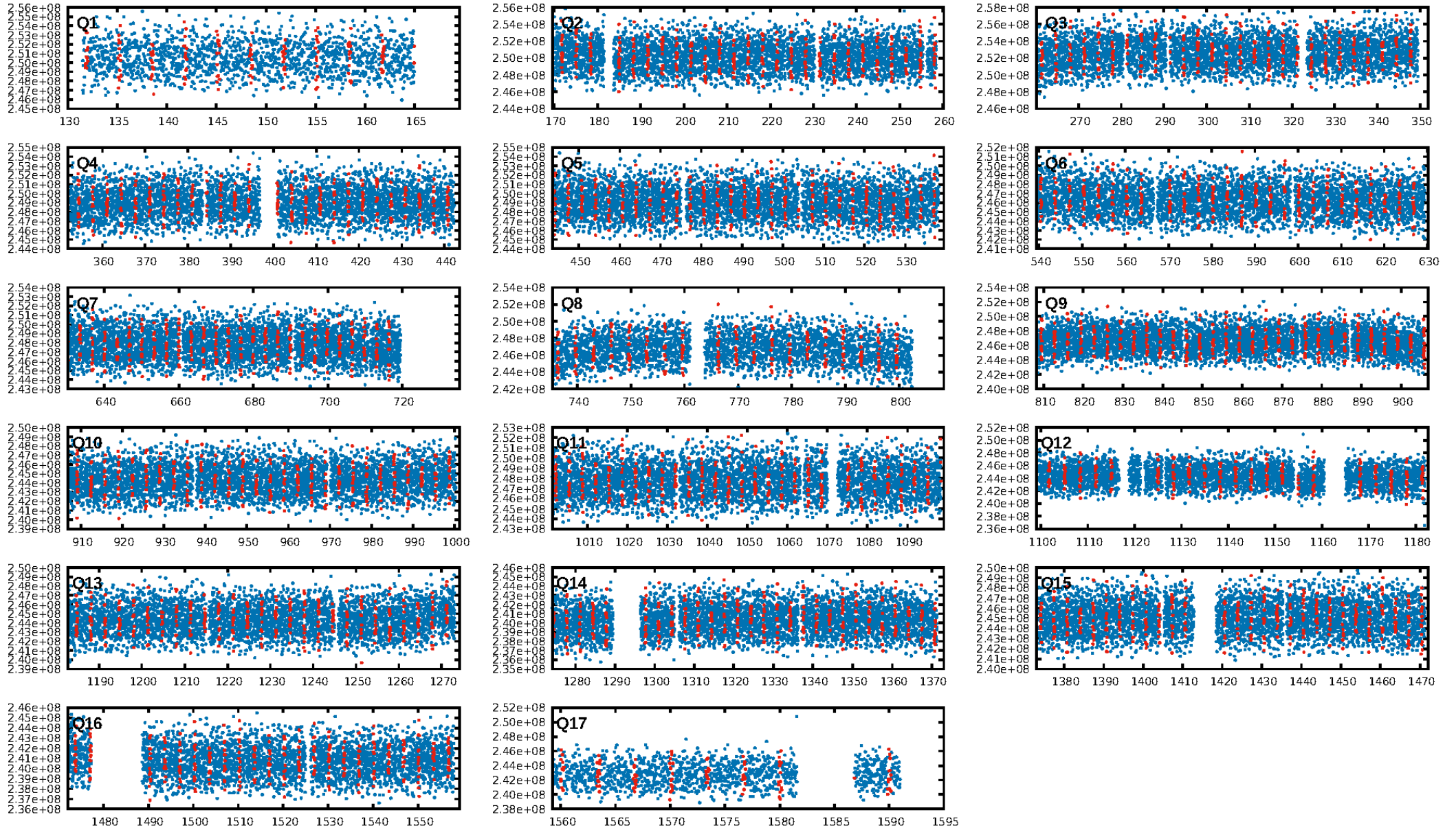
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [4.65σ]
LongPeriod-sig: 100.0% [4.43σ]
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 0.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [27/27]
GhostDiagnostic-chr: -3.325
Centroid-sig: 19.1%
Centroid-so: 0.016 arcsec [0.62σ]
OotOffset-rm: 0.028 arcsec [0.13σ]
KicOffset-rm: 0.115 arcsec [0.75σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.53 [9/17]
DiffImageOverlap-fno: 0.00 [0/17]

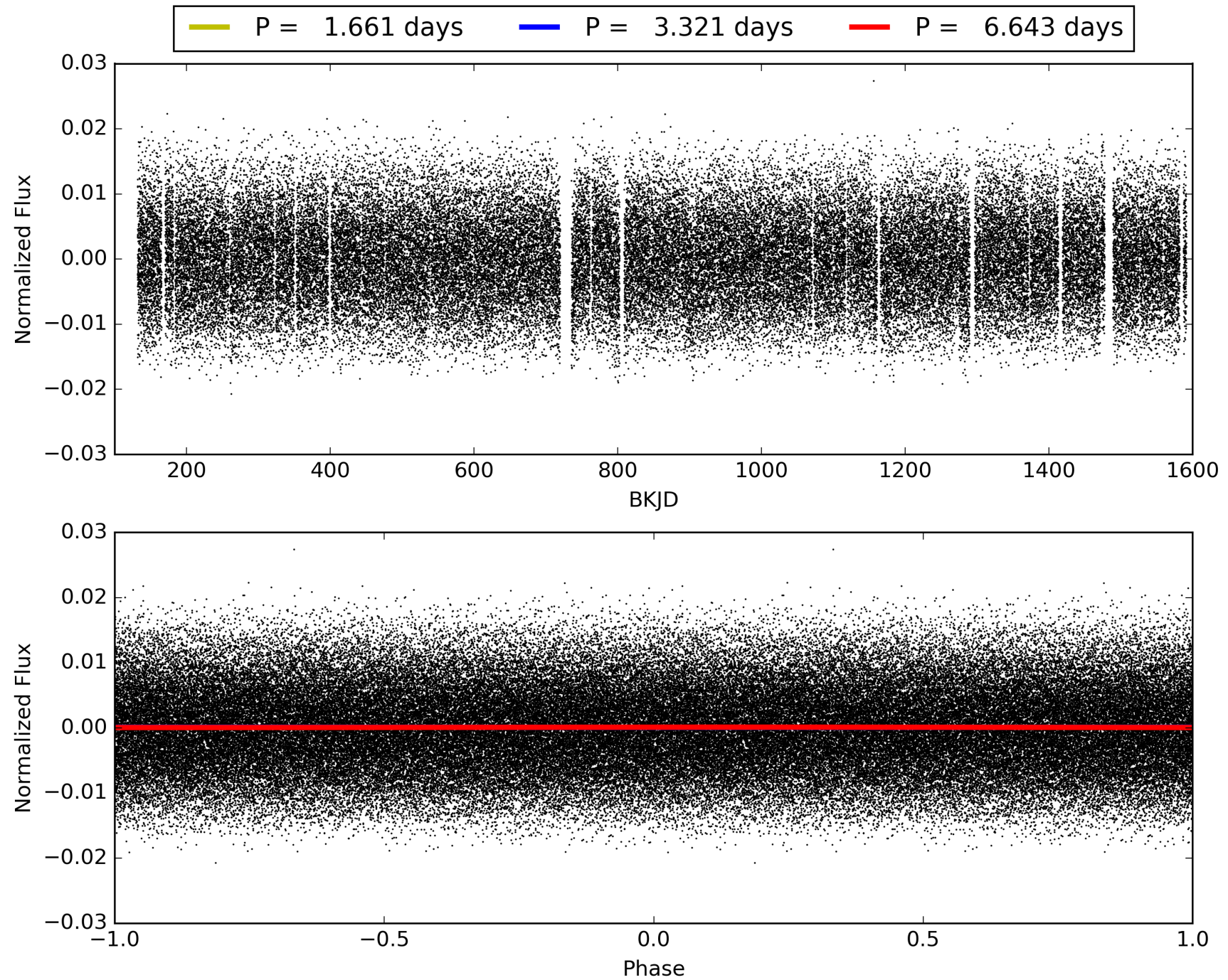
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:07:55 Z

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

TCE 007294598-04, PDC Light Curves

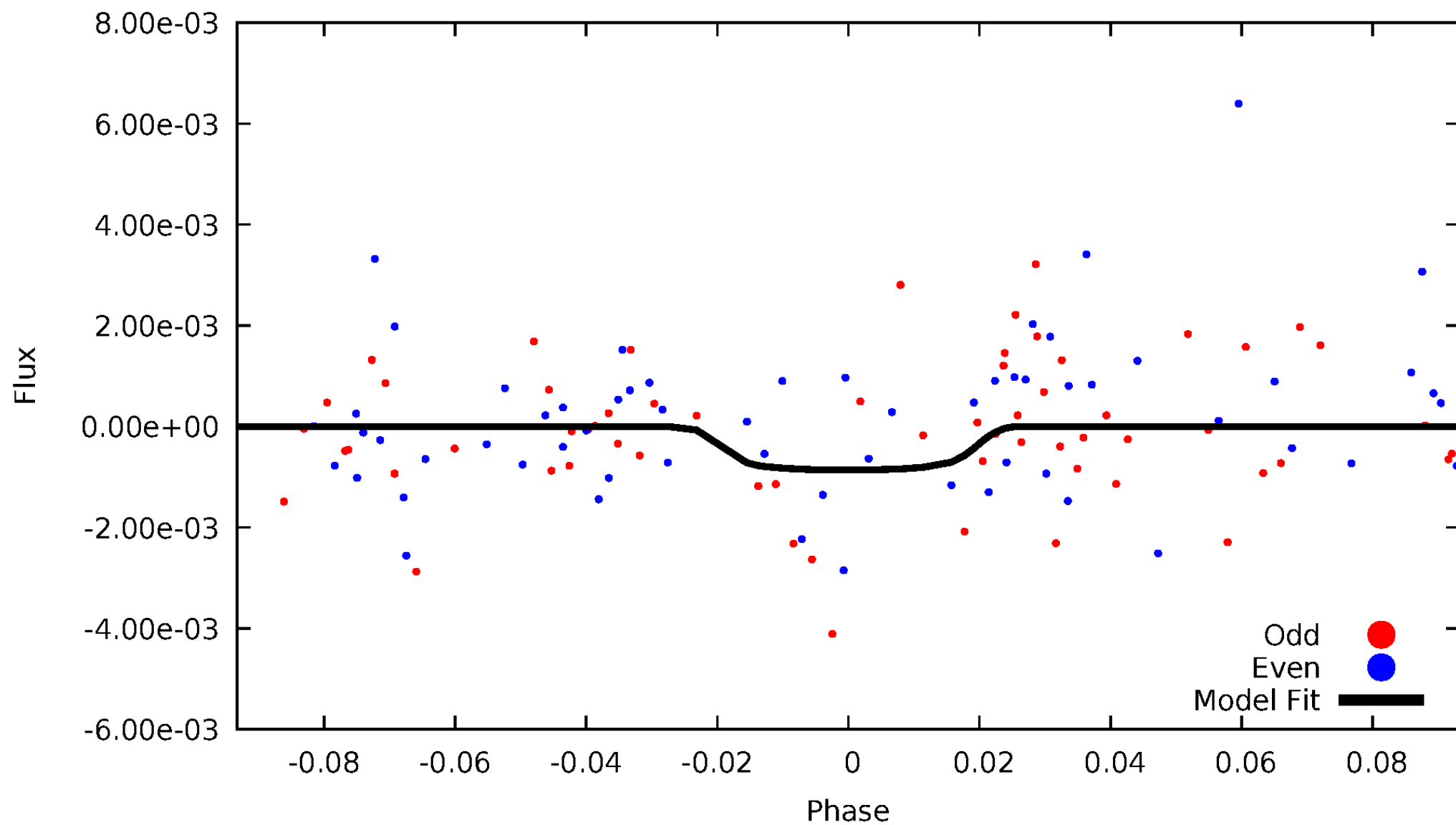


TCE 007294598-04



DV Odd/Even

TCE 007294598-04

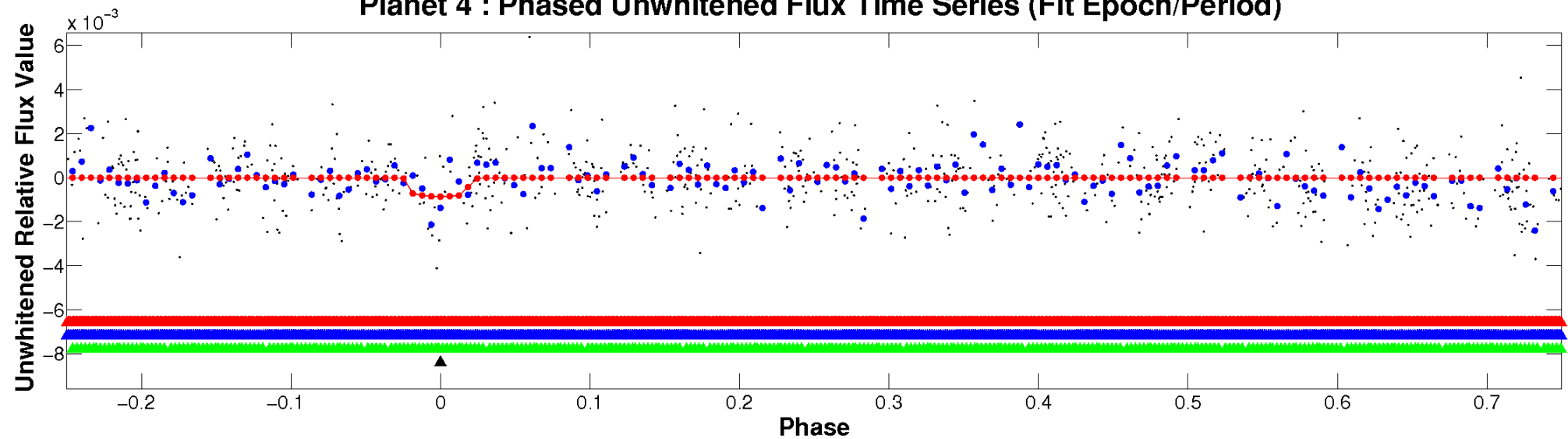


ALT Odd/Even

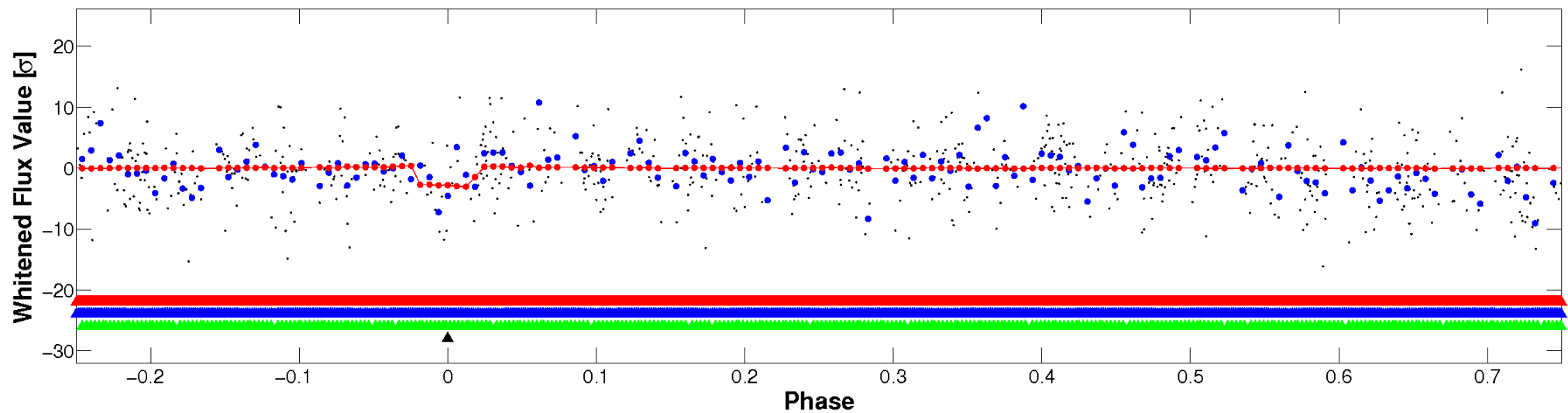
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

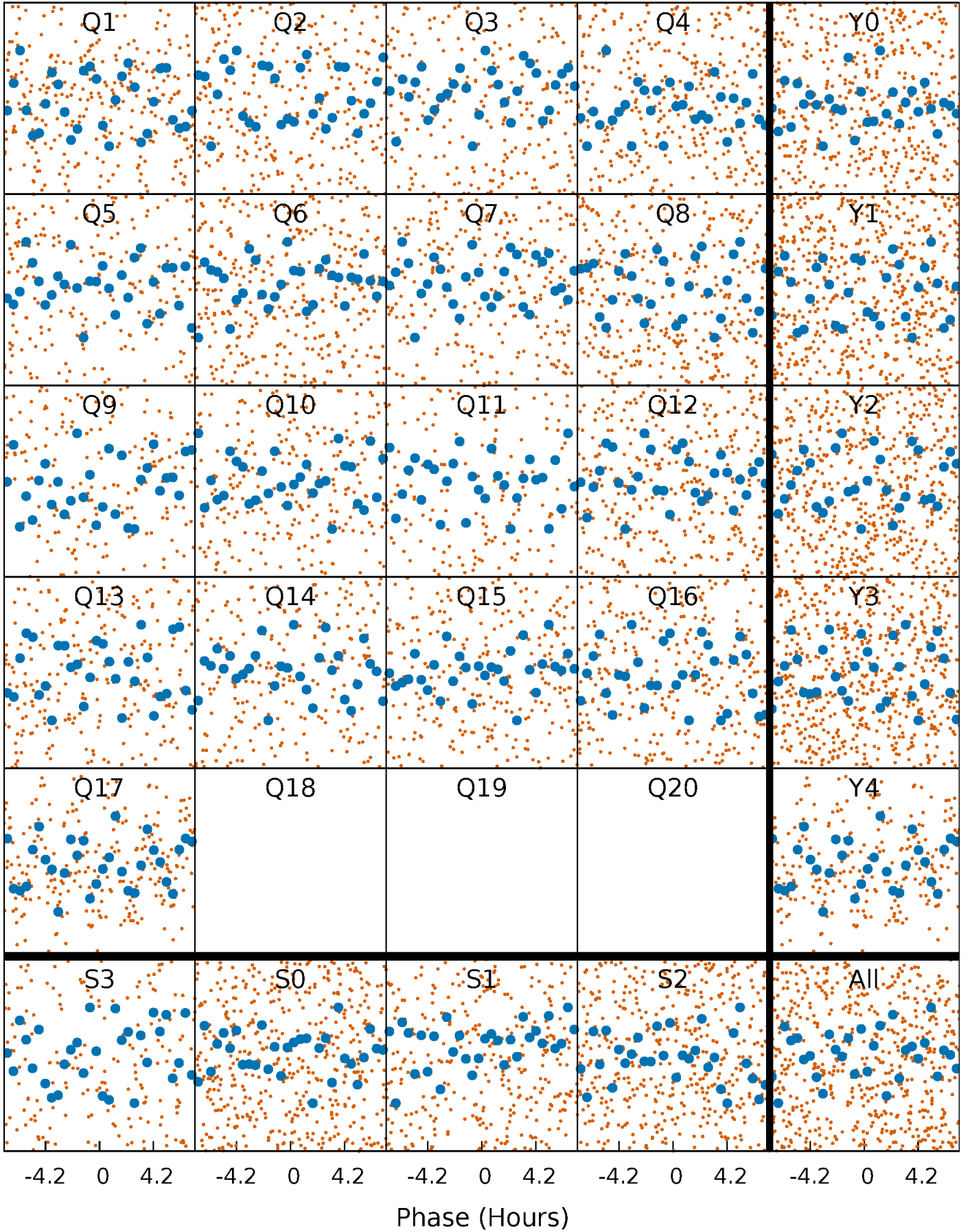


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



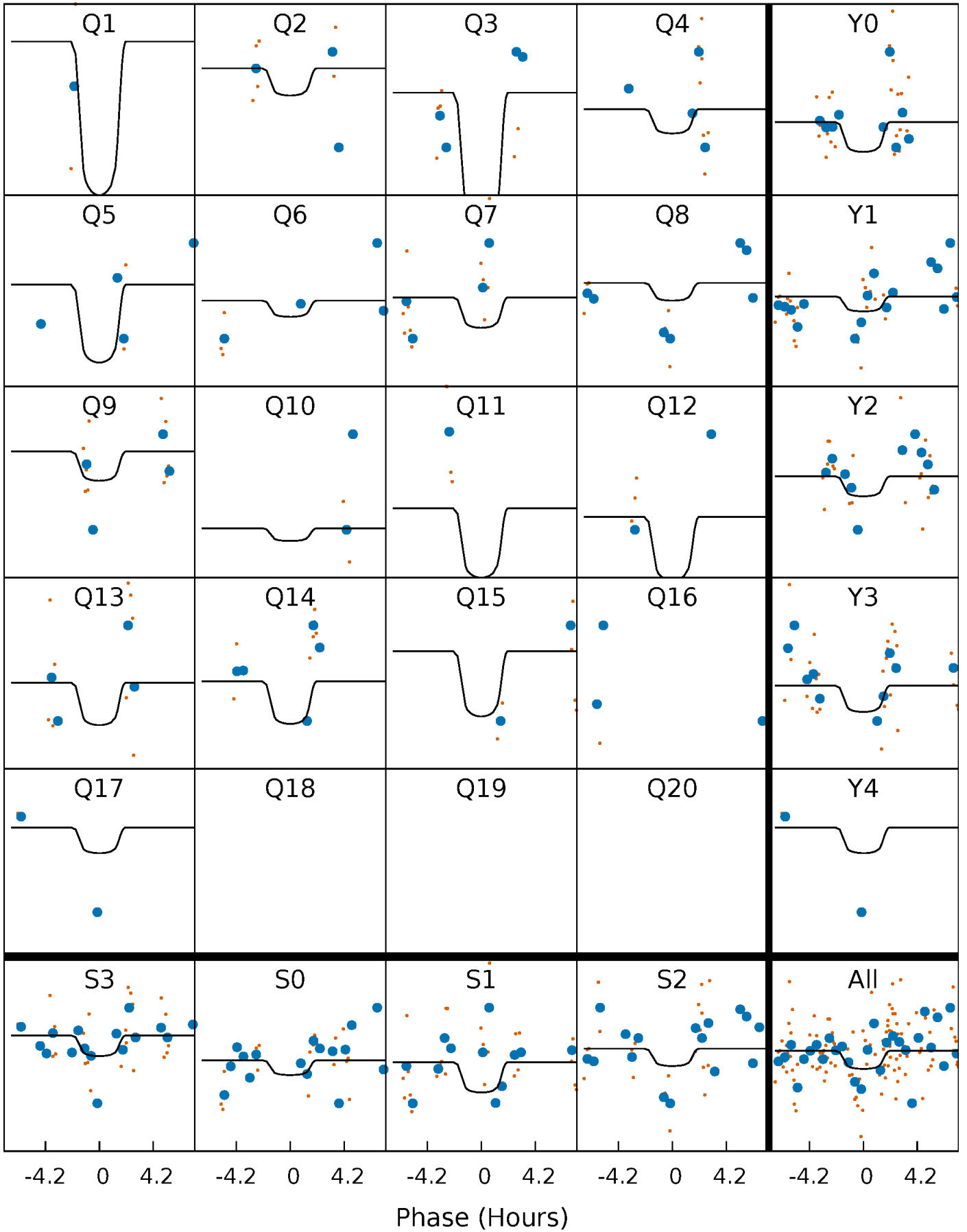
PDC Quarter-Phased Transit Curves

TCE 007294598-04 P= 3.321490 Days $T_0=131.884438$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007294598-04 P= 3.321490 Days $T_0=131.884438$ (BKJD)

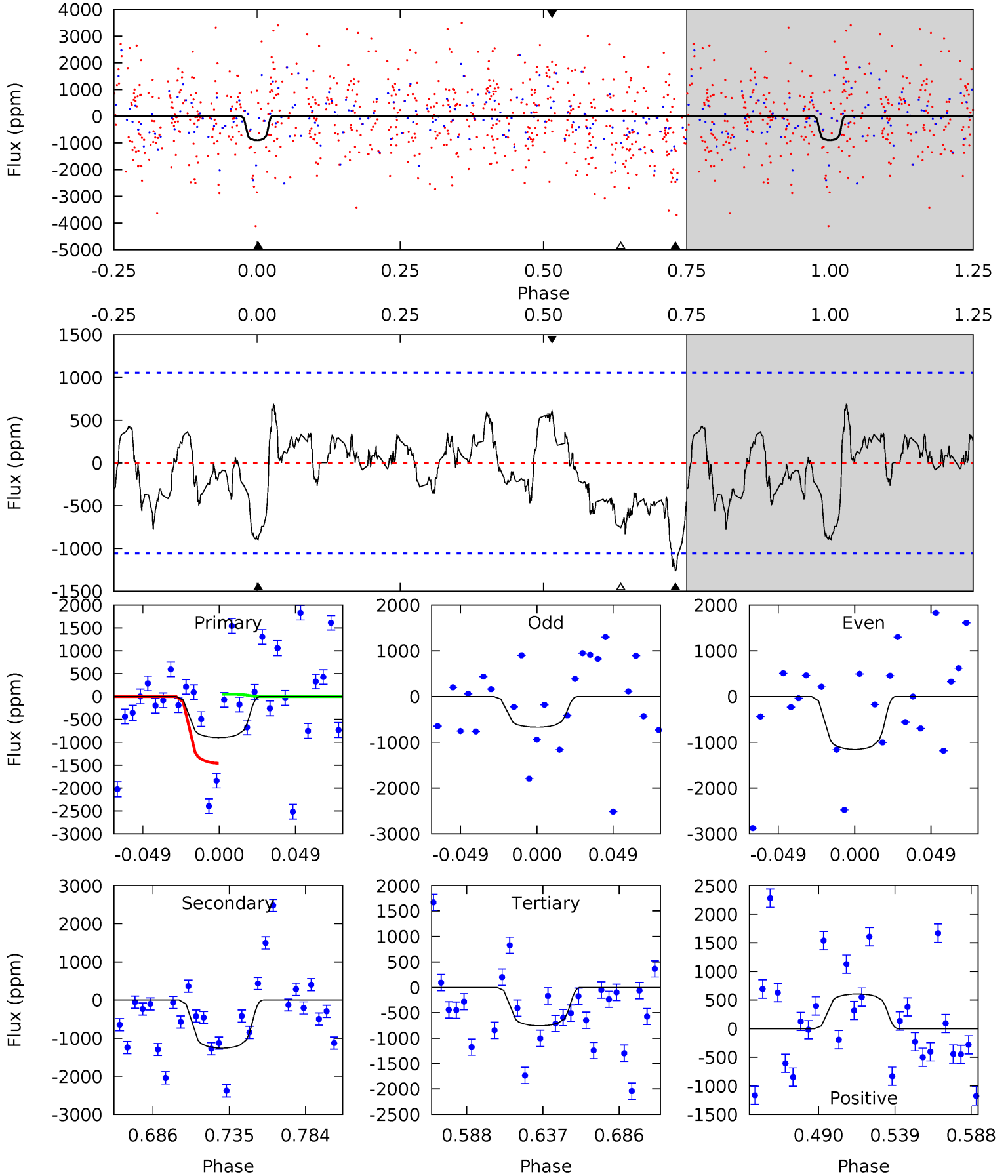


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007294598-04, P = 3.321490 Days, E = 131.884438 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.00	5.63	3.37	2.71	4.71	1.97	1.42	0.63	1.30	2.26	2.92	1.09	-2.13	0.35	3.06



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007294598

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6961^{+166}_{-249}	$4.229^{+0.090}_{-0.210}$	$-0.040^{+0.250}_{-0.350}$	$1.503^{+0.487}_{-0.262}$	$1.401^{+0.202}_{-0.202}$	$0.581^{+0.281}_{-0.299}$
	+2%/-4%	+2%/-5%	+625%/-875%	+32%/-17%	+14%/-14%	+48%/-51%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 007294598-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1261 ± 224	$5.41^{+2.95}_{-2.64}$	2407^{+199}_{-140}	7252^{+4306}_{-1416}	54^{+150}_{-31}
Alt.	N/A	N/A	N/A	N/A	N/A

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 $A_{\text{obs}} \gg 1.0$

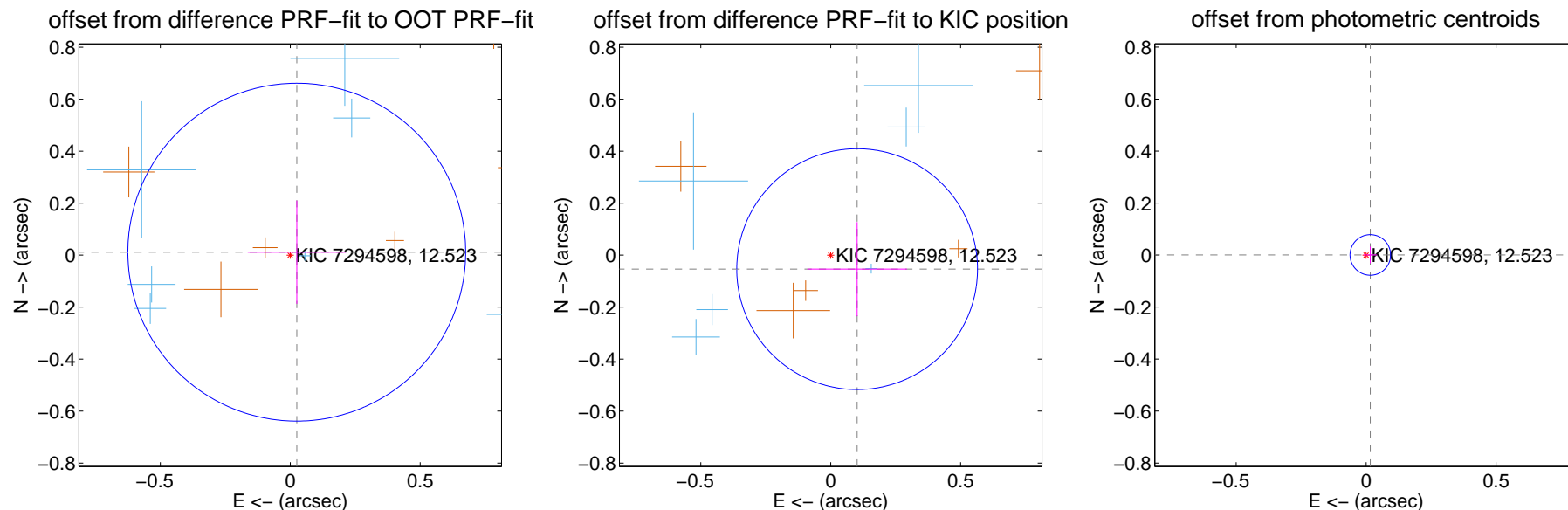
DV Centroid Data

Supplemental centroid analysis for 007294598-04. Kepler magnitude: 12.52. Transit SNR 11.59

There are 9 quarters with good PRF difference image offsets

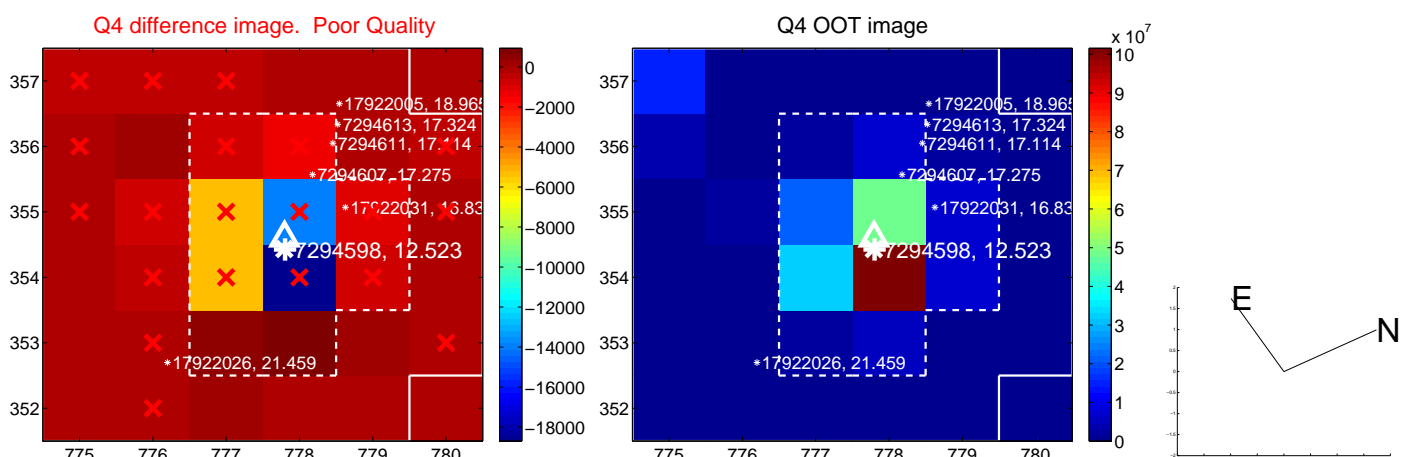
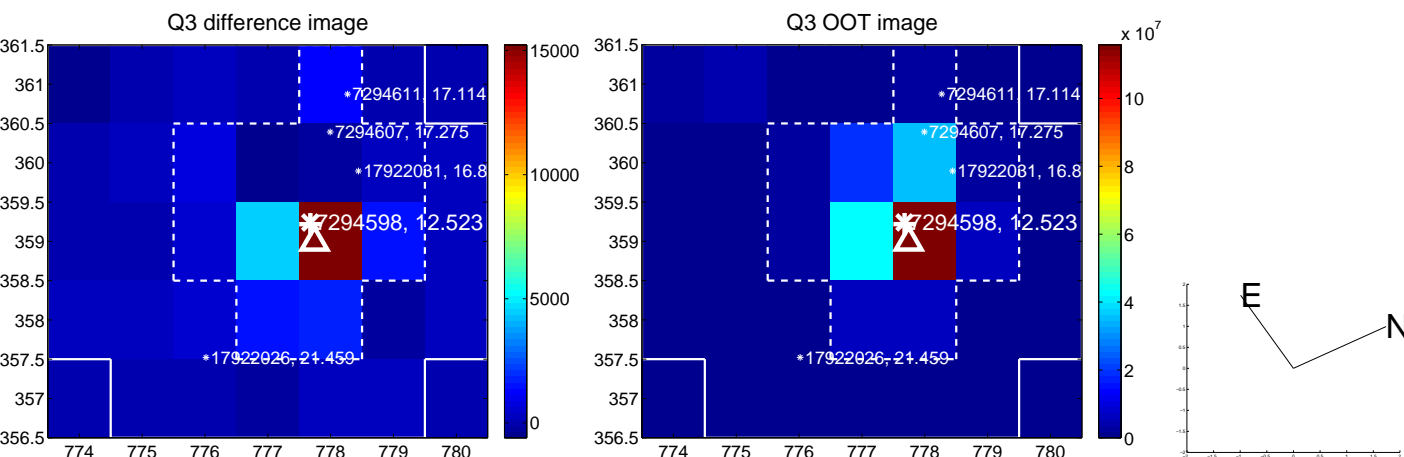
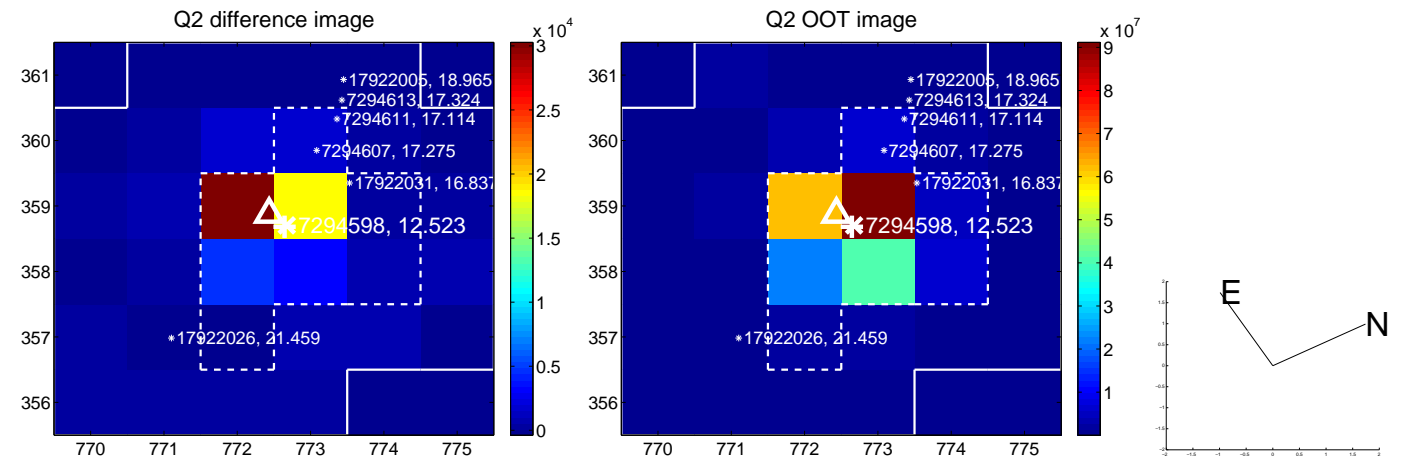
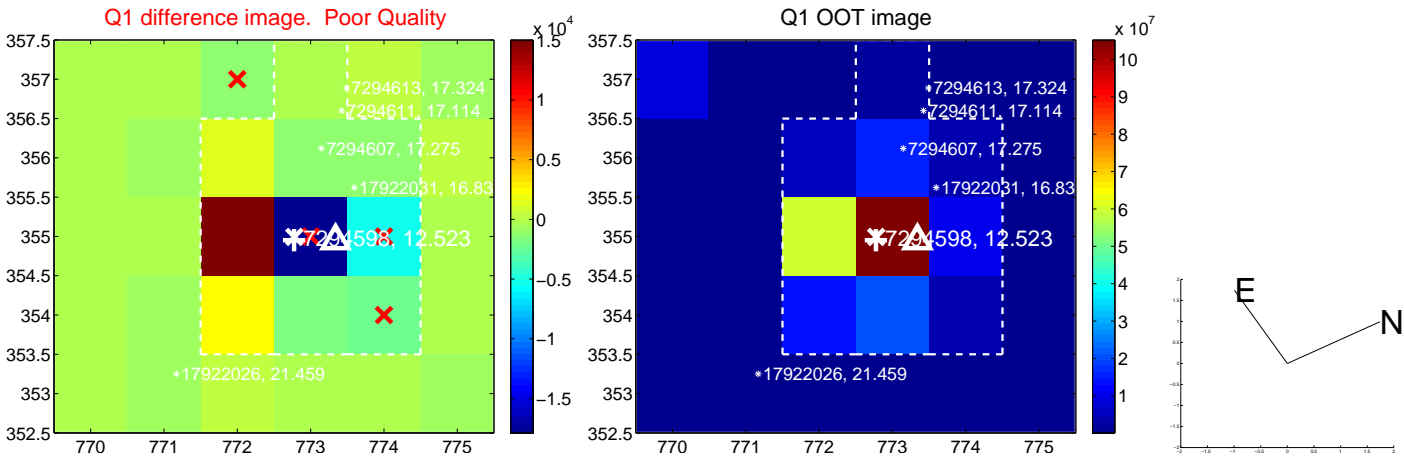
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.028 ± 0.217	0.13	-0.025 ± 0.189	0.011 ± 0.198
PRF-fit source offset from KIC position	0.115 ± 0.154	0.75	-0.102 ± 0.192	-0.054 ± 0.181
photometric centroid source offset	0.02 ± 0.03	0.62	-0.02 ± 0.03	0.00 ± 0.03

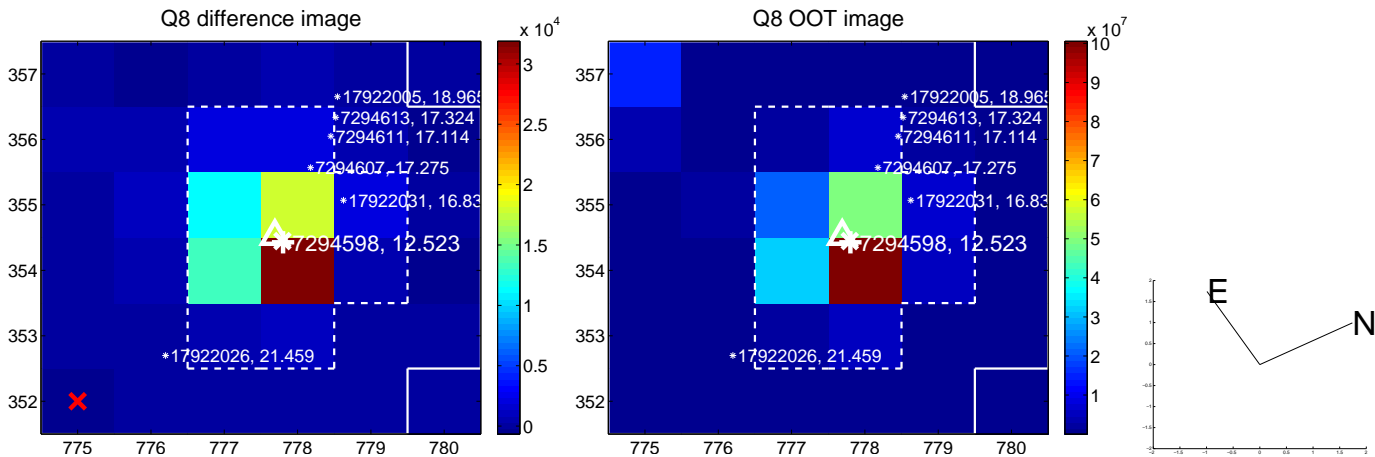
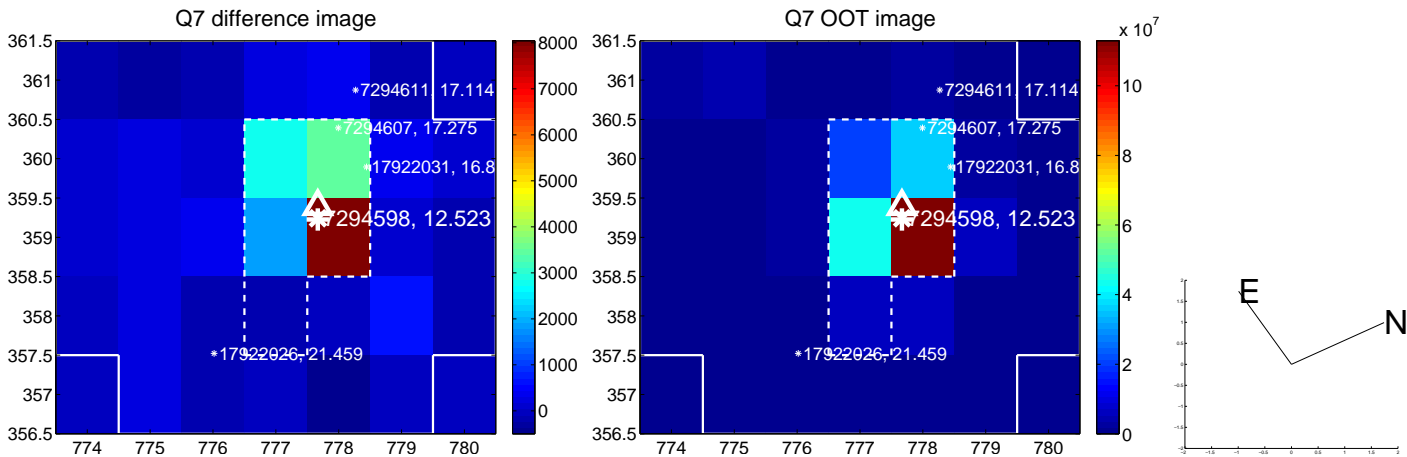
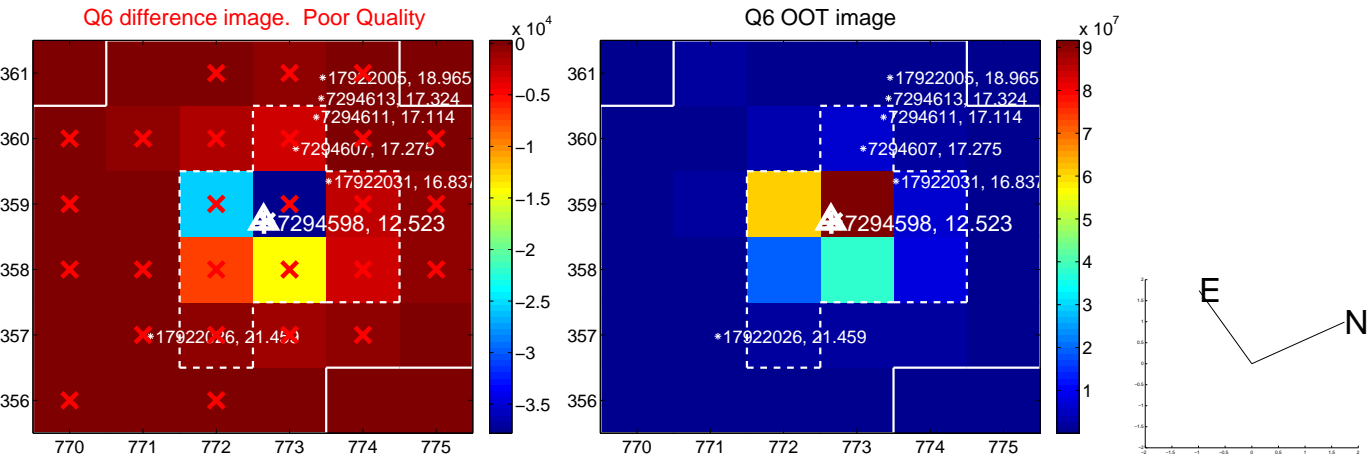
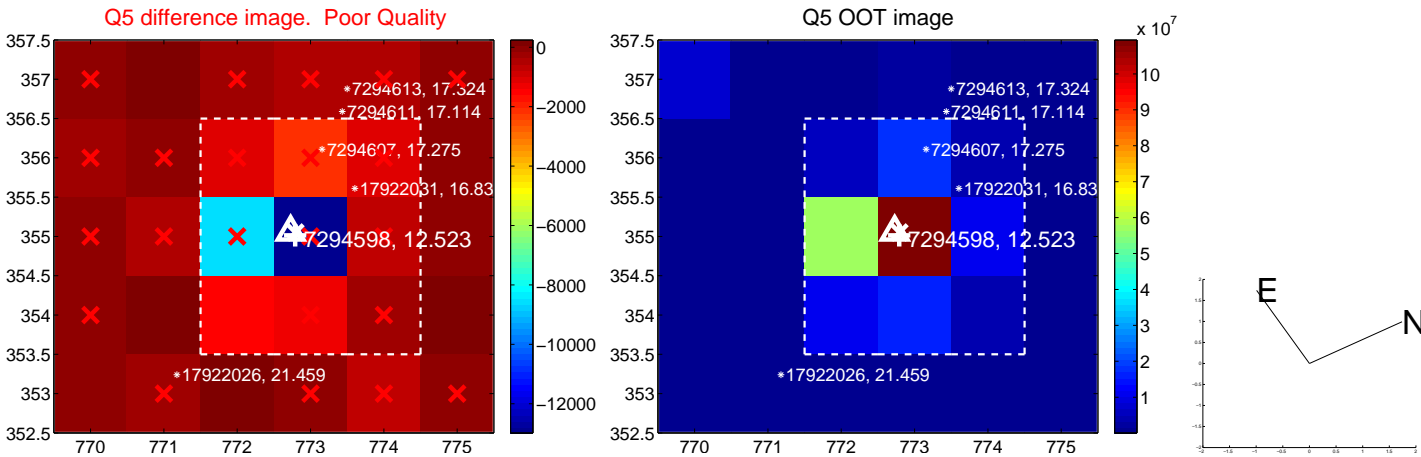


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

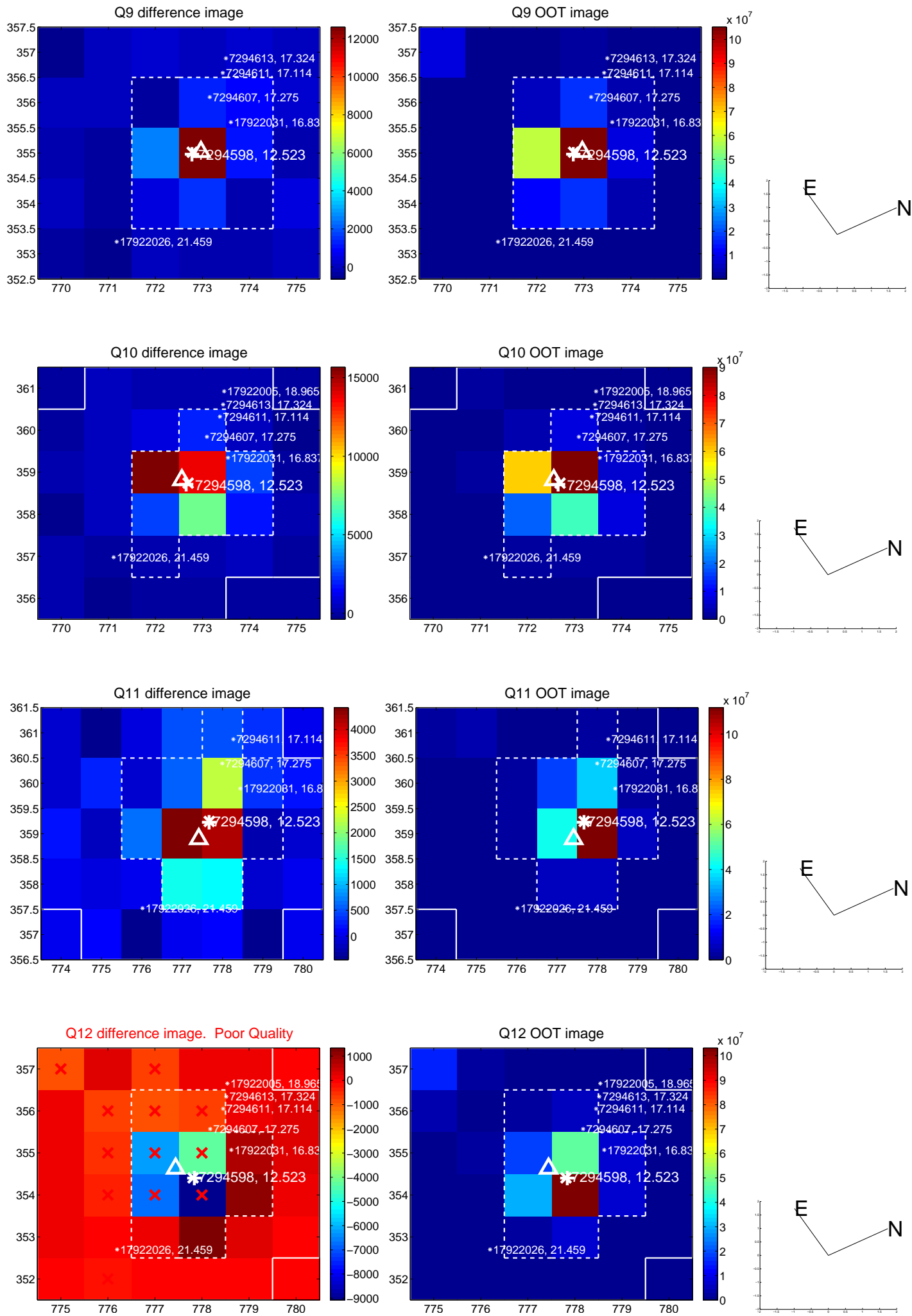
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



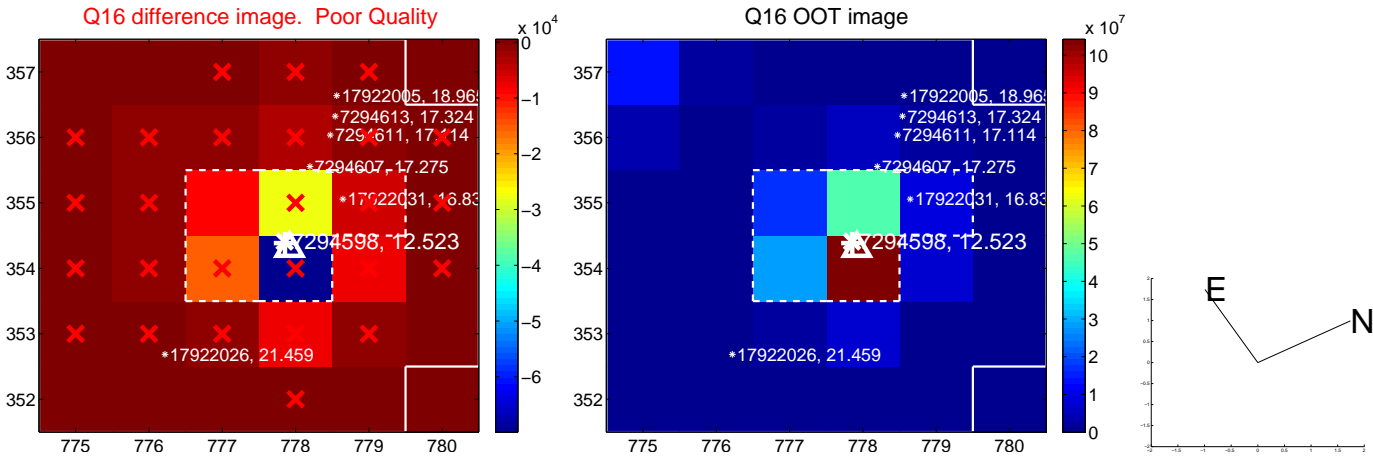
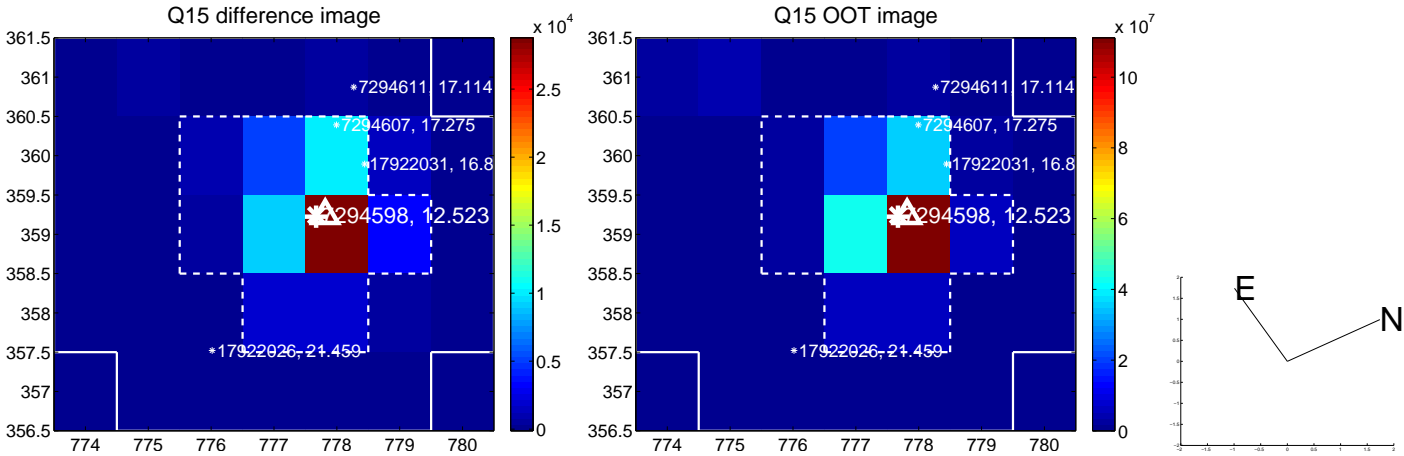
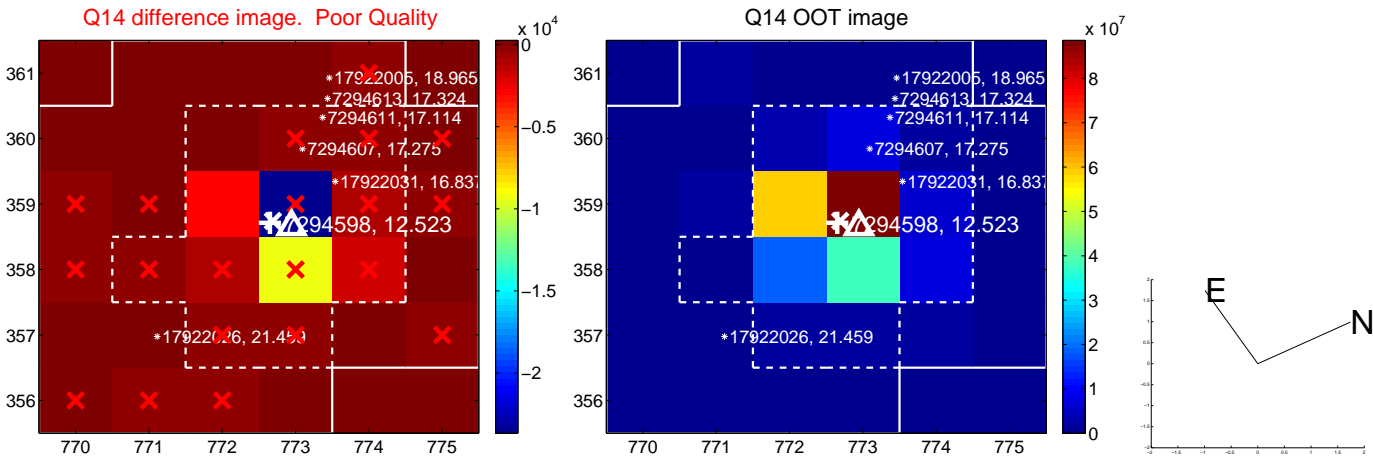
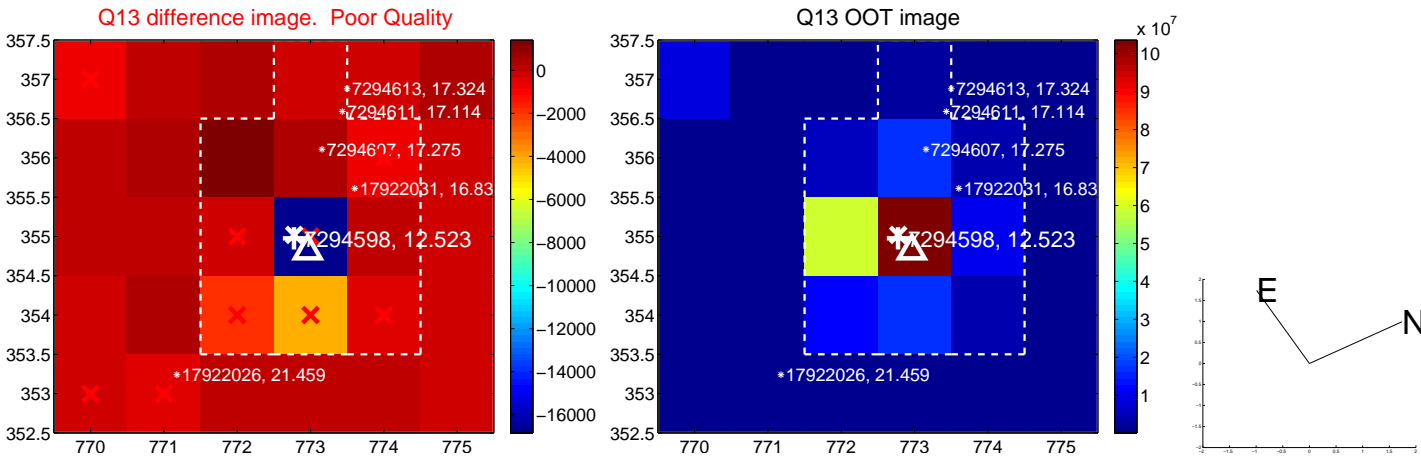
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



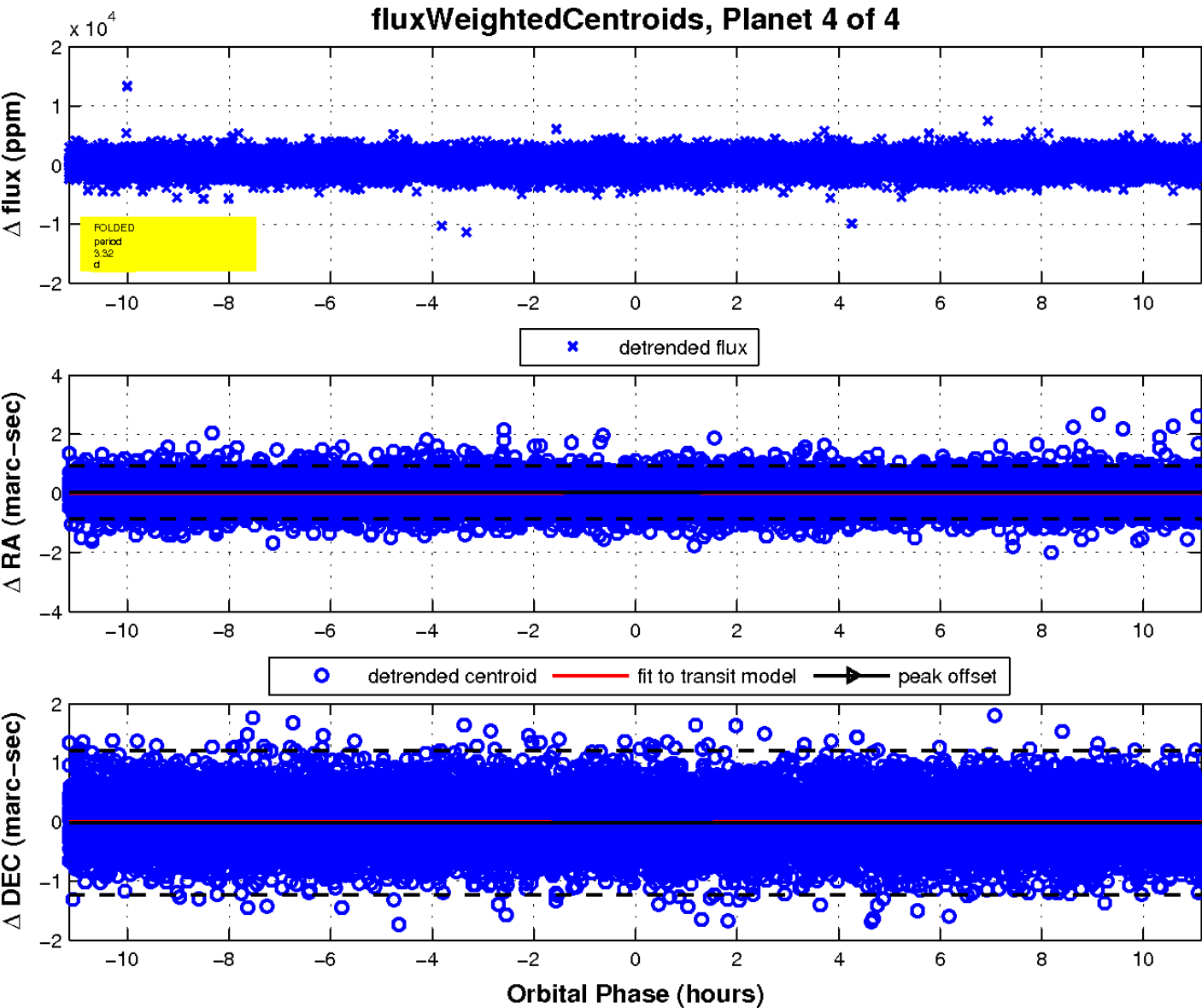
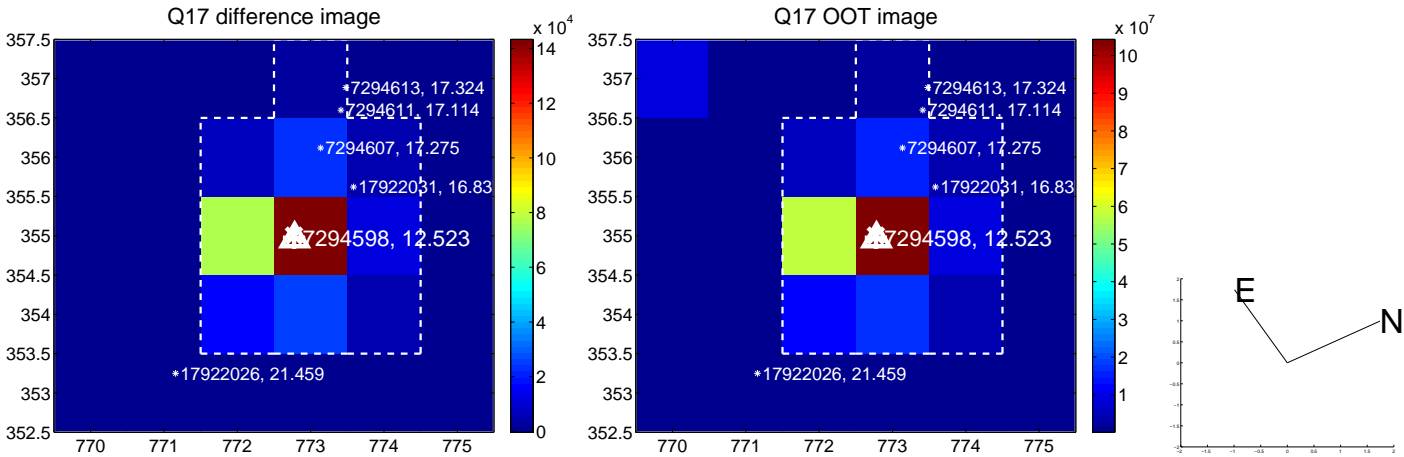
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

