

KIC 007465661

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})
007465661-01	OBS	No	1.180223	131.970075	31.0	6.819	15.1	14.0	4.11	6088	2.36	28942.97
007465661-02	OBS	No	38.487883	148.545501	264.3	1.548	9.0	8.4	4.11	6088	6.77	277.80
007465661-03	OBS	No	110.246984	191.696763	253.9	7.244	8.9	9.0	4.11	6088	7.52	68.29
007465661-04	OBS	No	75.004390	181.428297	307.1	1.965	8.3	8.6	4.11	6088	8.19	114.12
007465661-05	OBS	No	33.037657	155.454949	226.5	2.000	8.2	-1.0	4.11	6088	6.18	340.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007465661-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV
007465661-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV
007465661-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007465661-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007465661-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_NOFITS

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

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

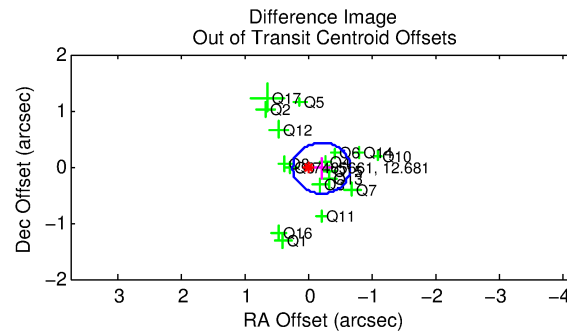
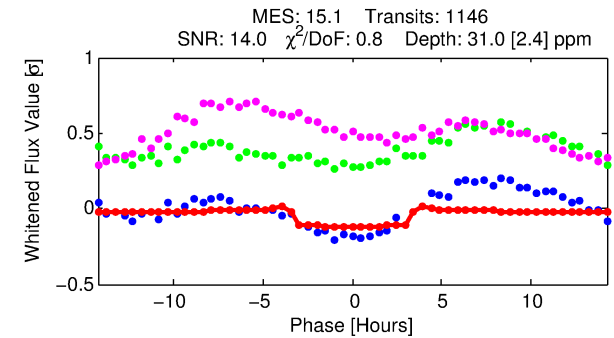
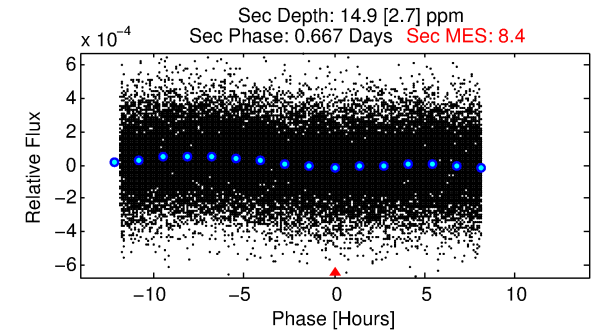
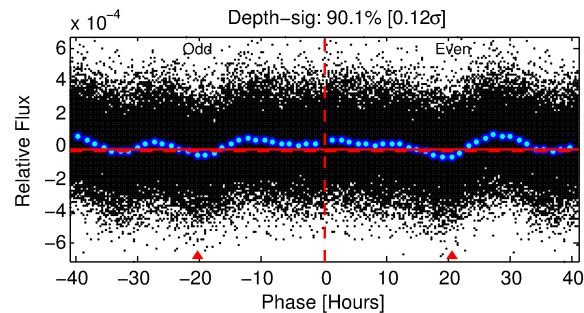
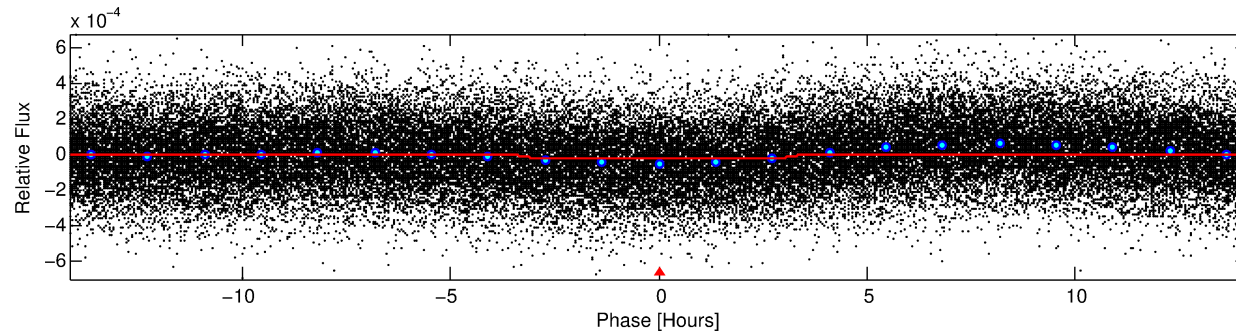
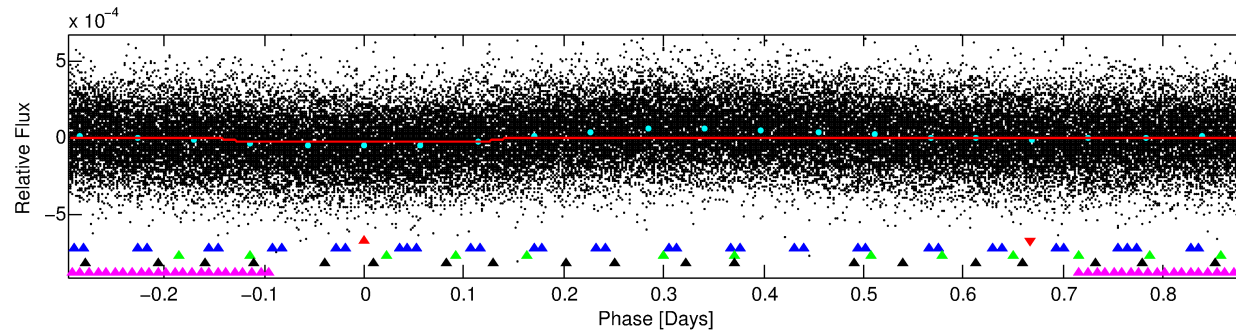
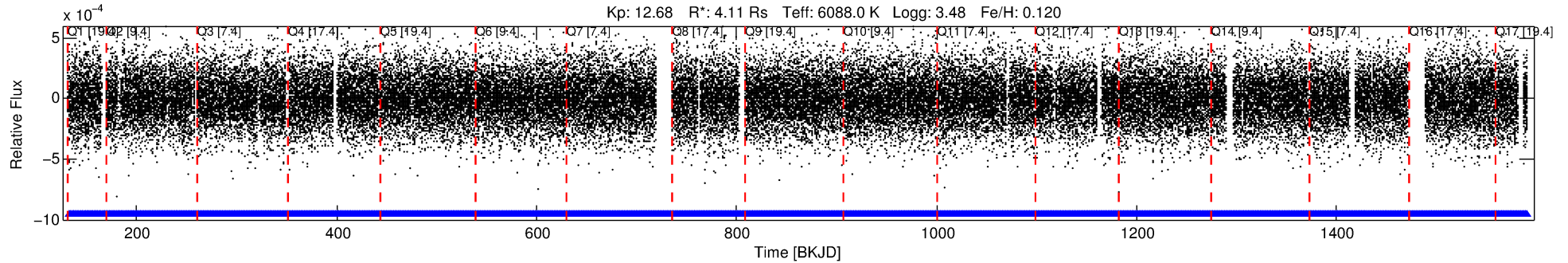
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007465661-01

No Significant Match Found

DV One-Page Summary

KIC: 7465661 Candidate: 1 of 5 Period: 1.180 d



DV Fit Results:

Period = 1.18022 [0.00001] d
Epoch = 131.9701 [0.0036] BKJD
Rp/R* = 0.0053 [0.0025]
a/R* = 1.36 [1.44]
b = 0.52 [3.26]
Seff = 28942.97 [19653.75]
Teq = 3326 [565] K
Rp = 2.36 [1.51] Re
a = 0.0268 [0.0111] AU
Ag = 1.06 [1.25] [0.05 σ]
Teffp = 5217 [1283] K [1.35 σ]

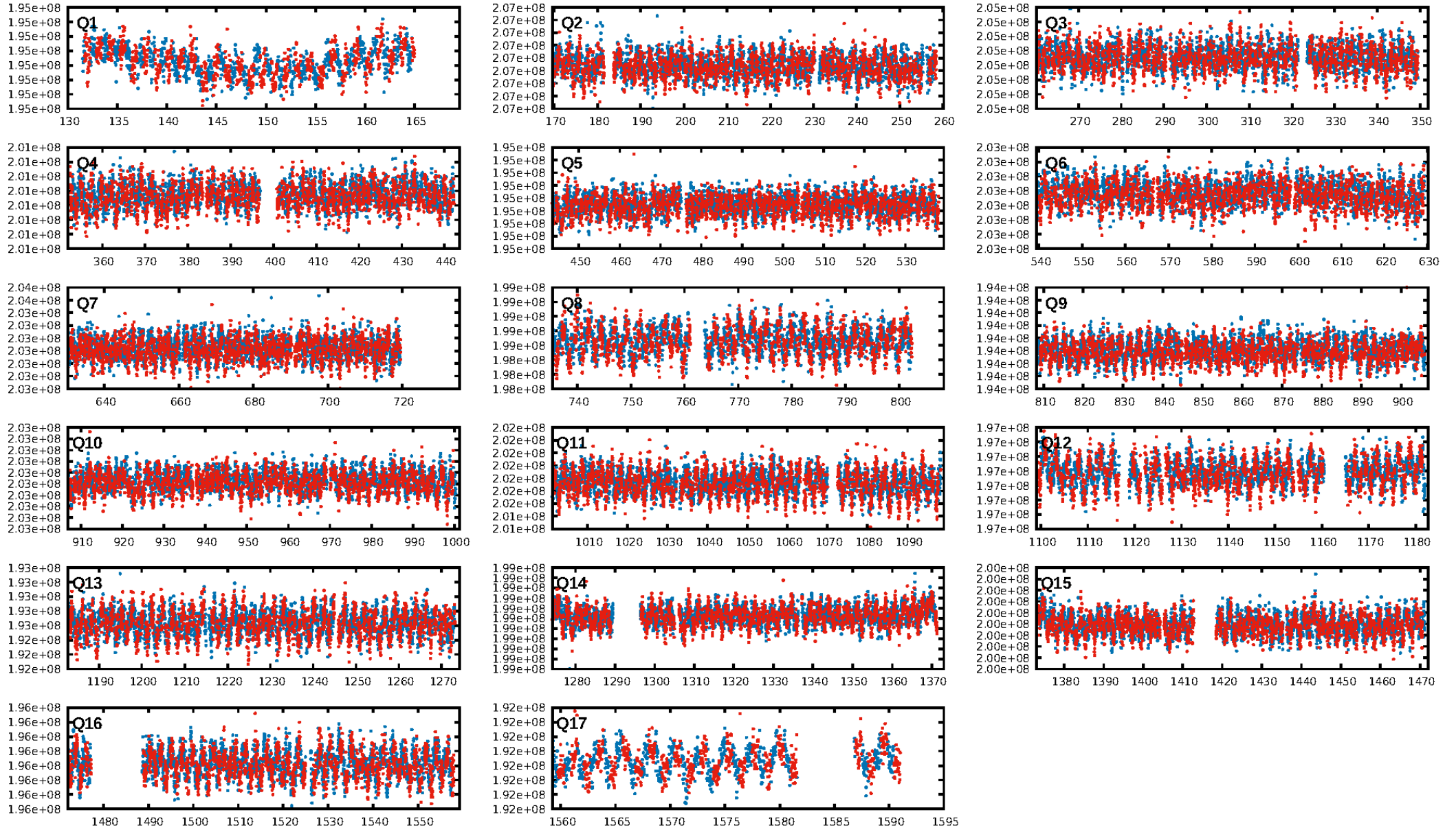
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [107.59 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1094/1094]
GhostDiagnostic-chr: 1.917
Centroid-sig: 42.8%
Centroid-so: 0.266 arcsec [0.75 σ]
OotOffset-rm: 0.202 arcsec [1.34 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.313 arcsec [1.99 σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

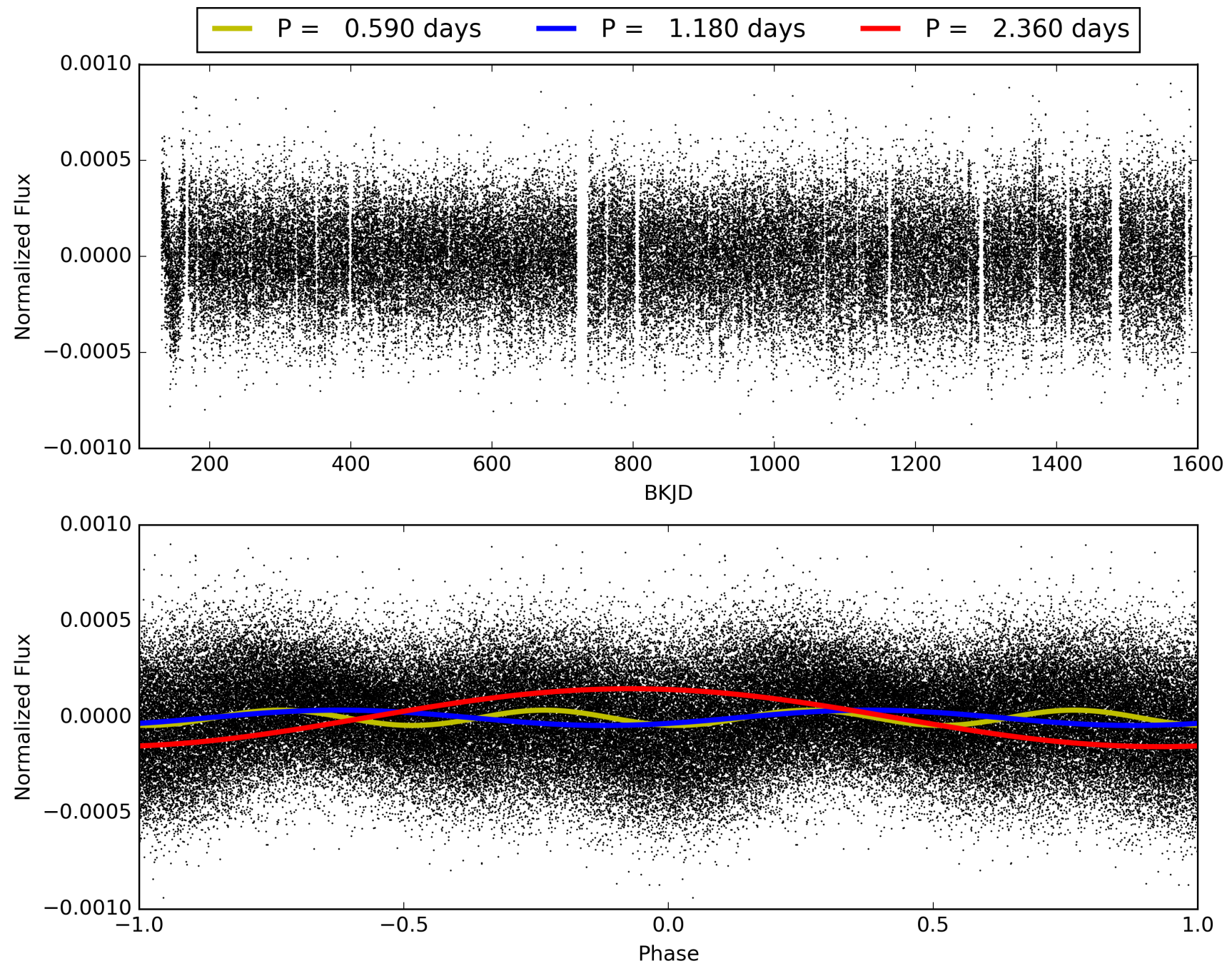
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007465661-01, PDC Light Curves

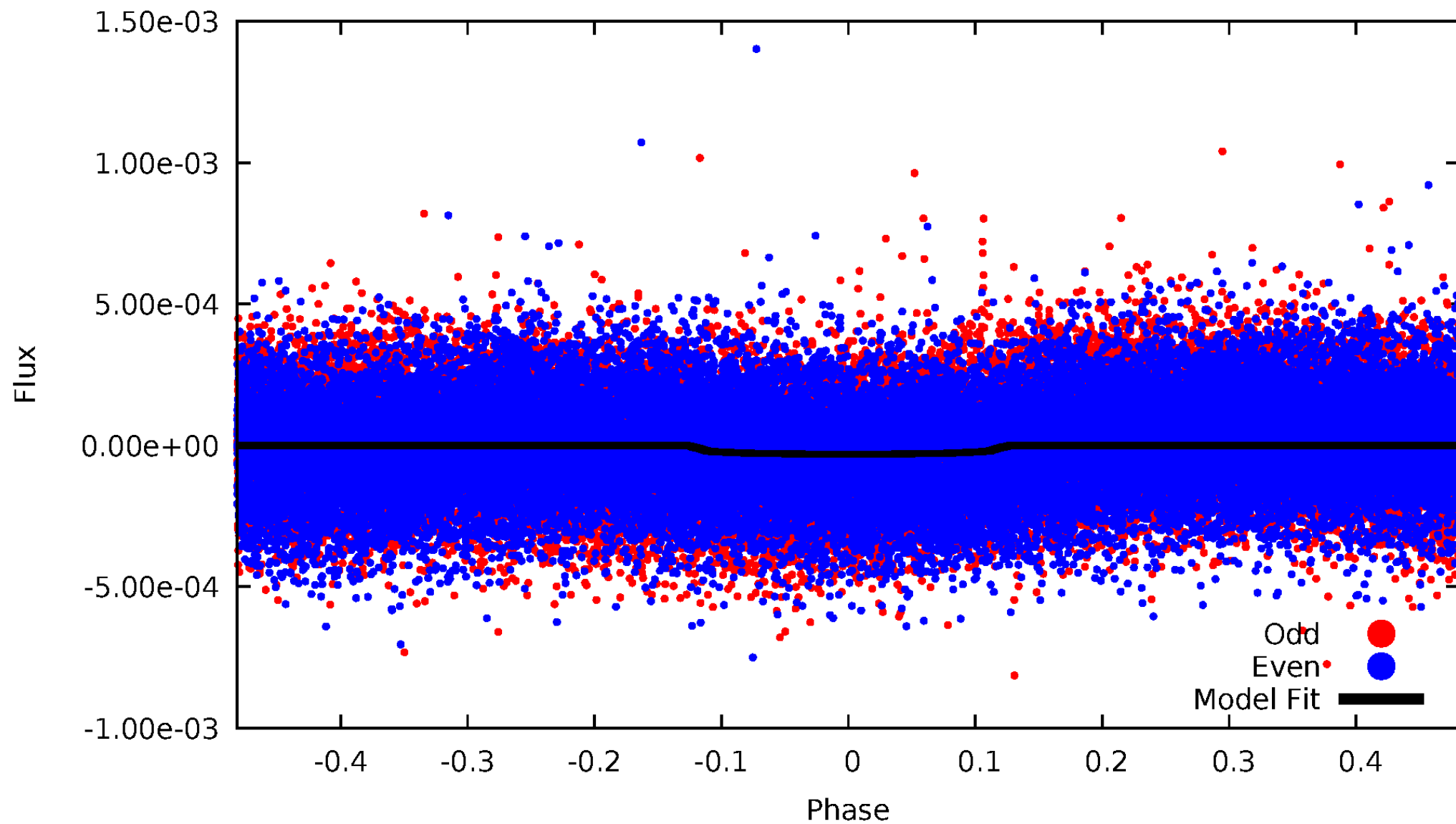


TCE 007465661-01



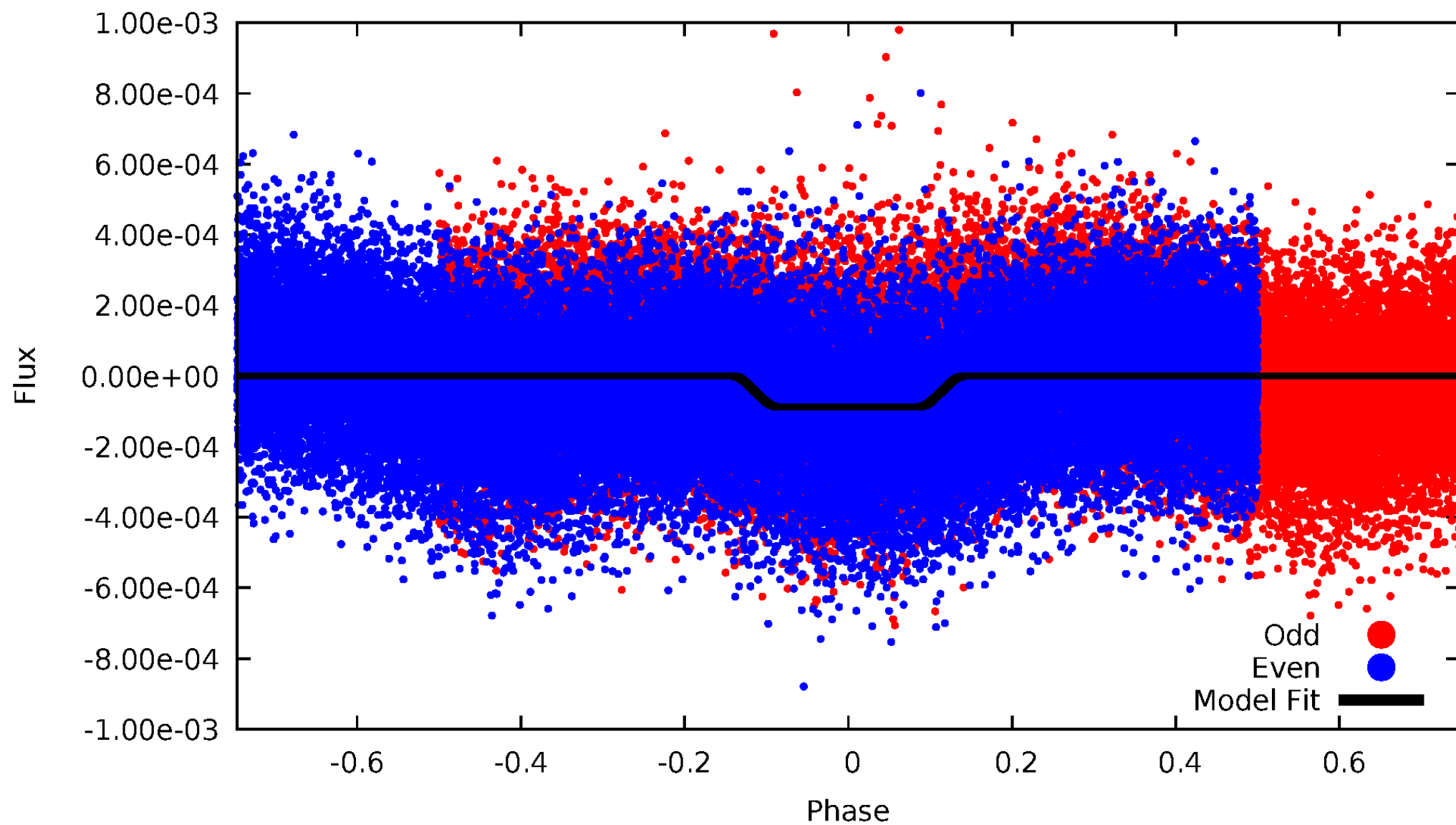
DV Odd/Even

TCE 007465661-01

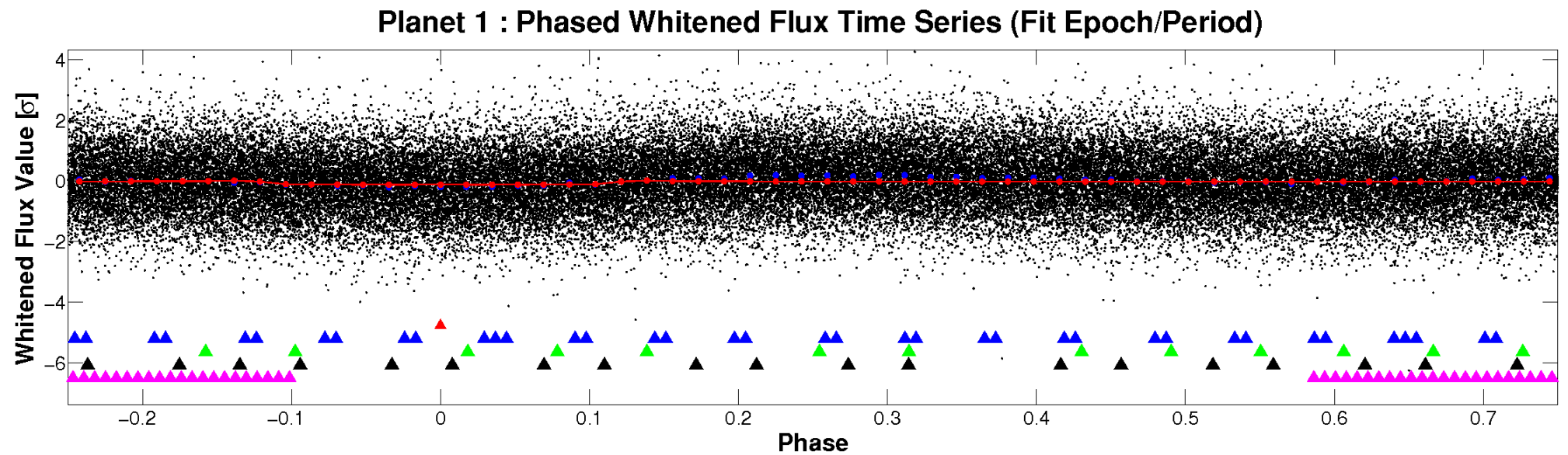
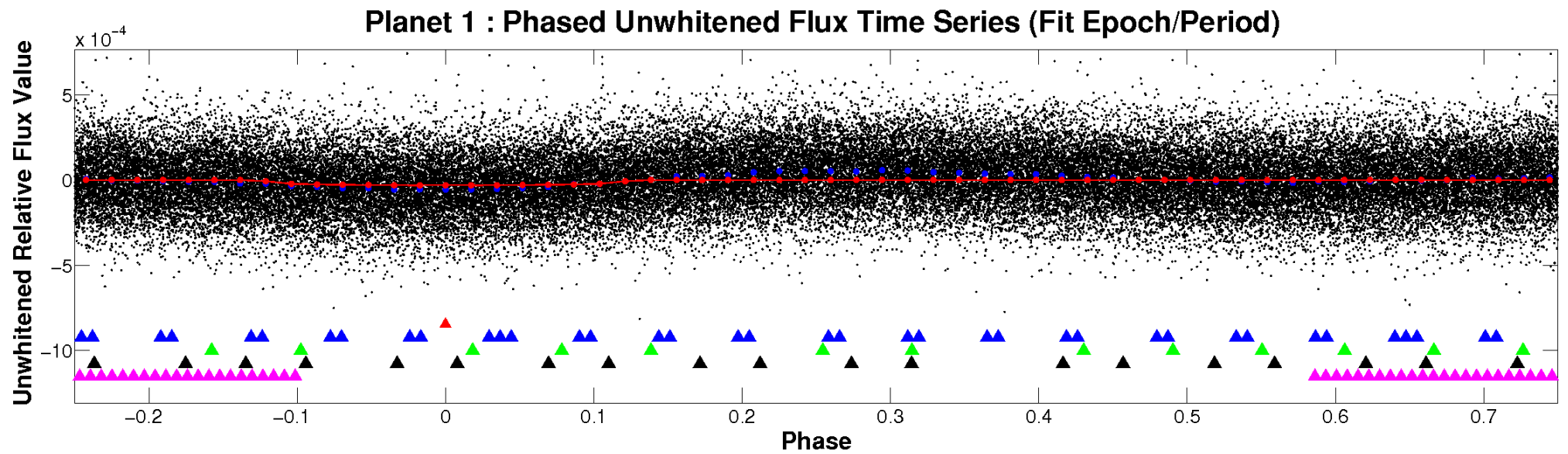


ALT Odd/Even

TCE 007465661-01

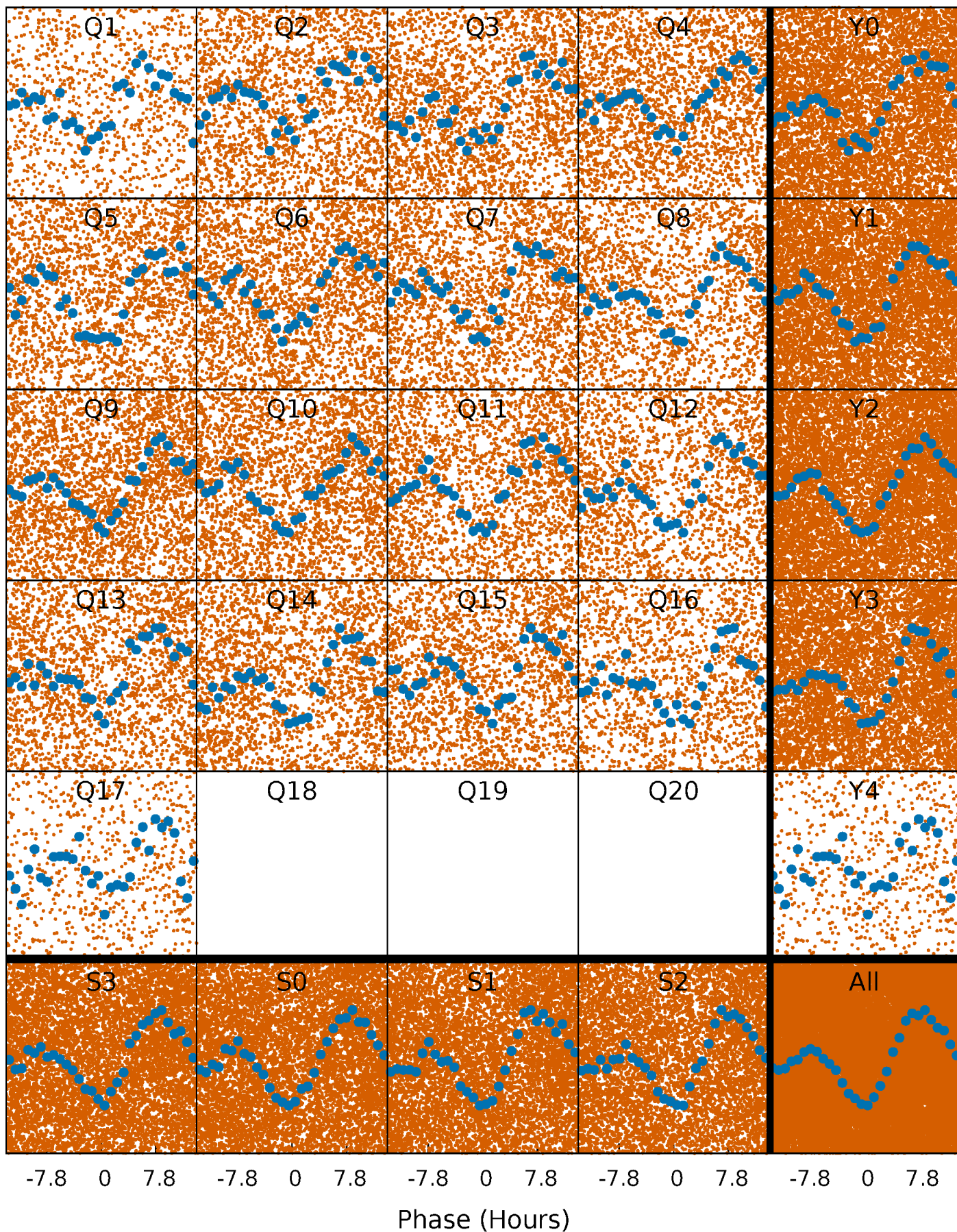


Non-Whitened Vs. Whitened Light Curve



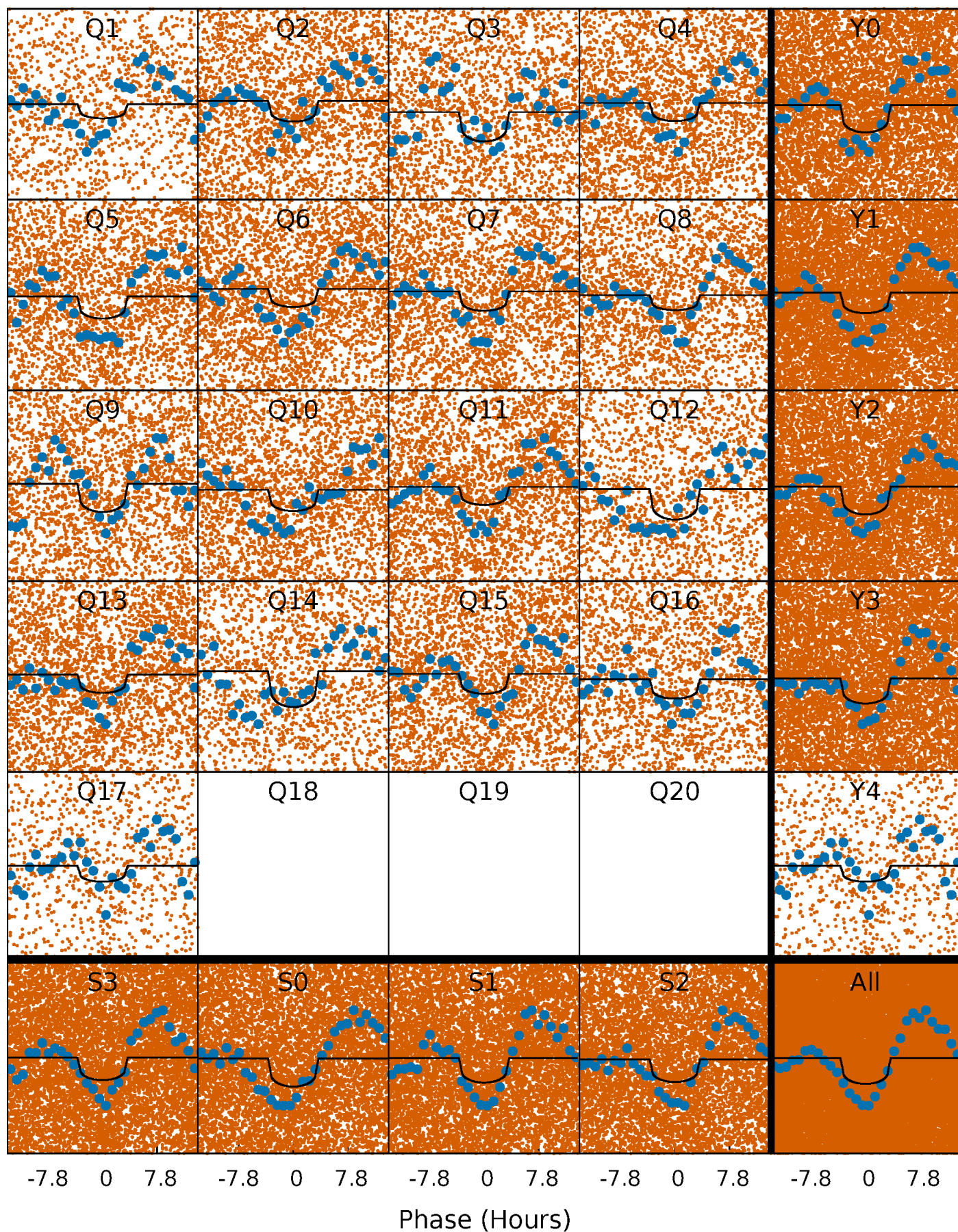
PDC Quarter-Phased Transit Curves

TCE 007465661-01 P= 1.180223 Days $T_0=131.970076$ (BKJD)



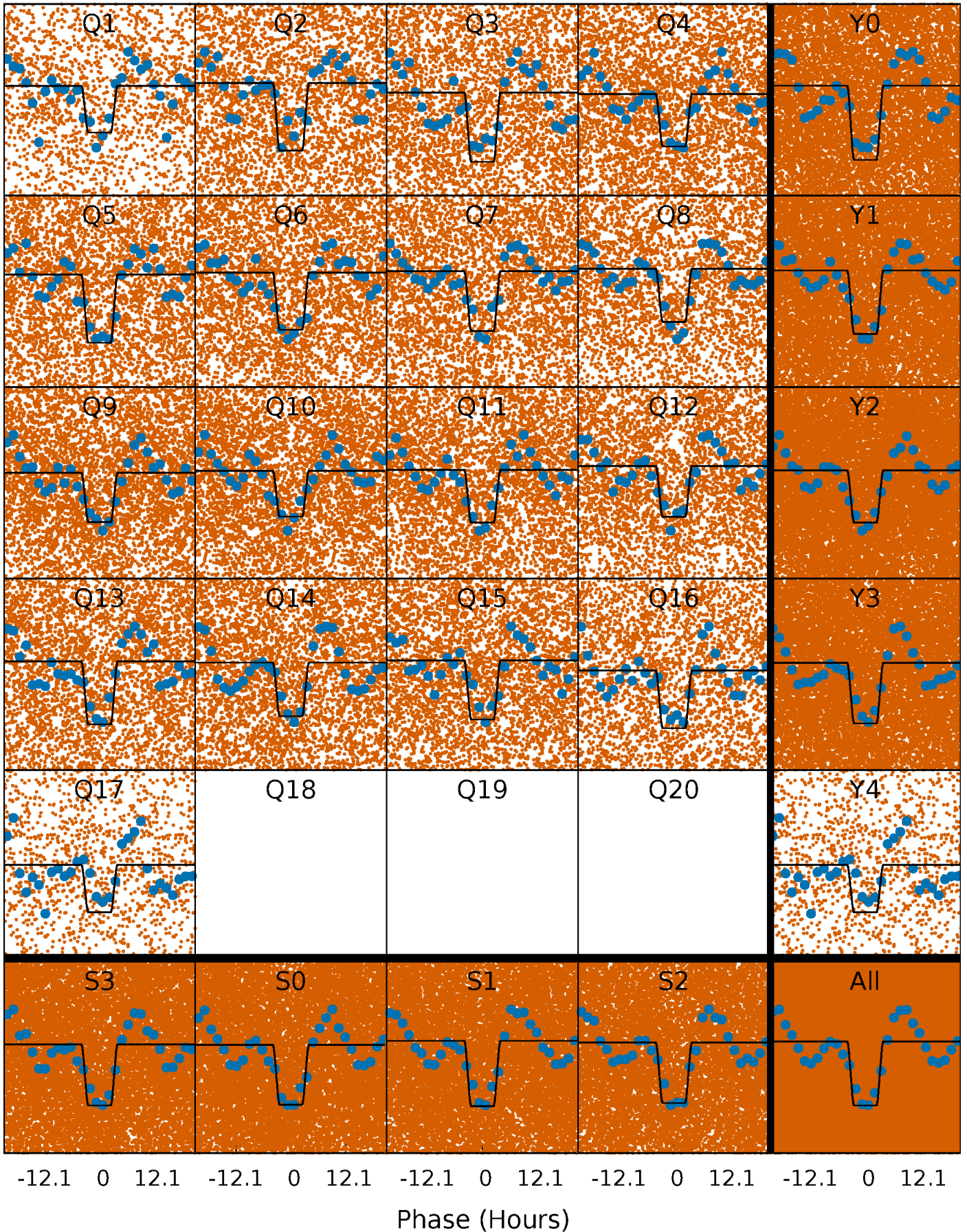
DV Quarter-Phased Transit Curves

TCE 007465661-01 P= 1.180223 Days $T_0=131.970076$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

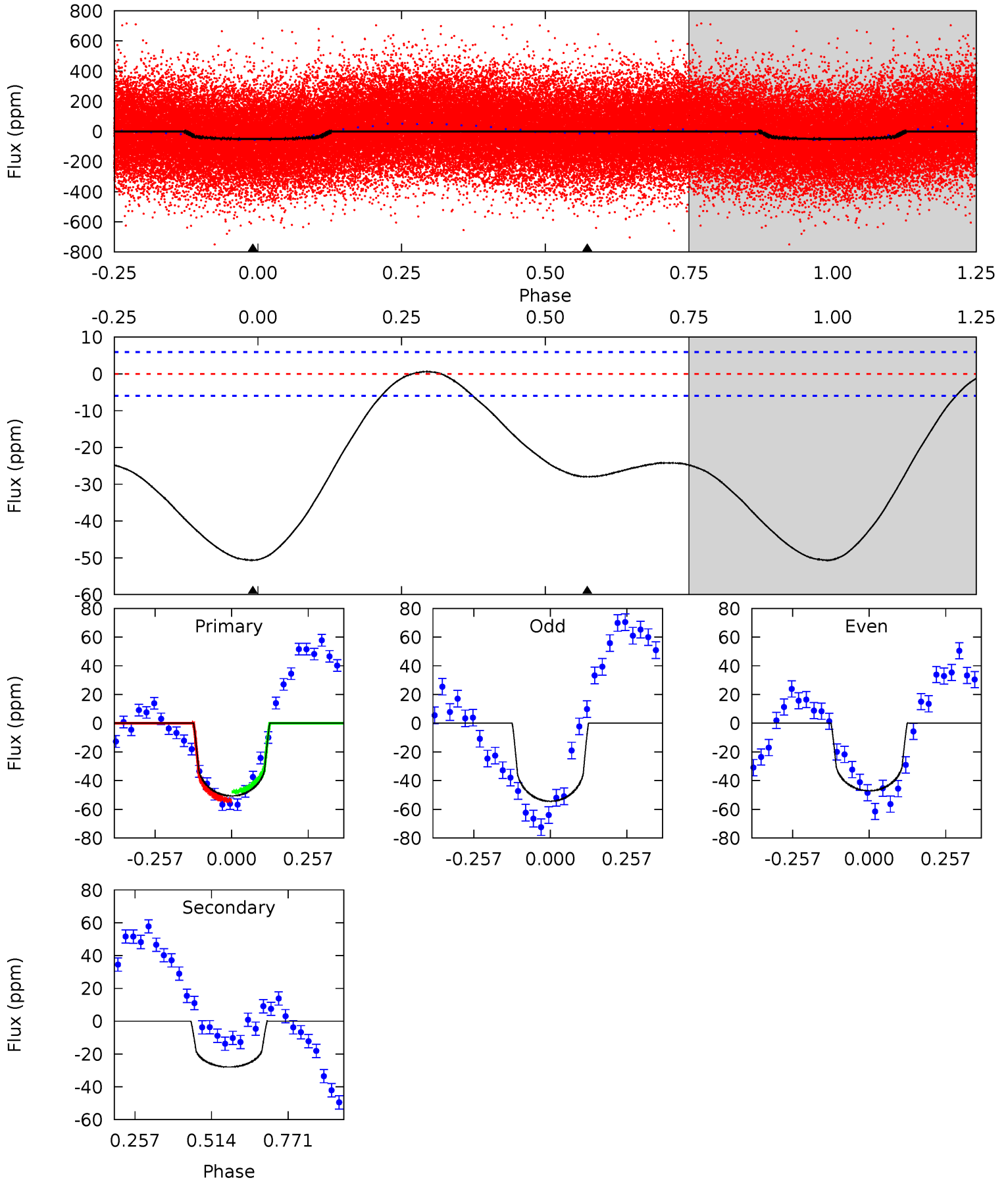
TCE 007465661-01 P= 1.180272 Days $T_0=131.925788$ (BKJD)



DV Model-Shift Uniqueness Test

007465661-01, P = 1.180223 Days, E = 130.789853 Days

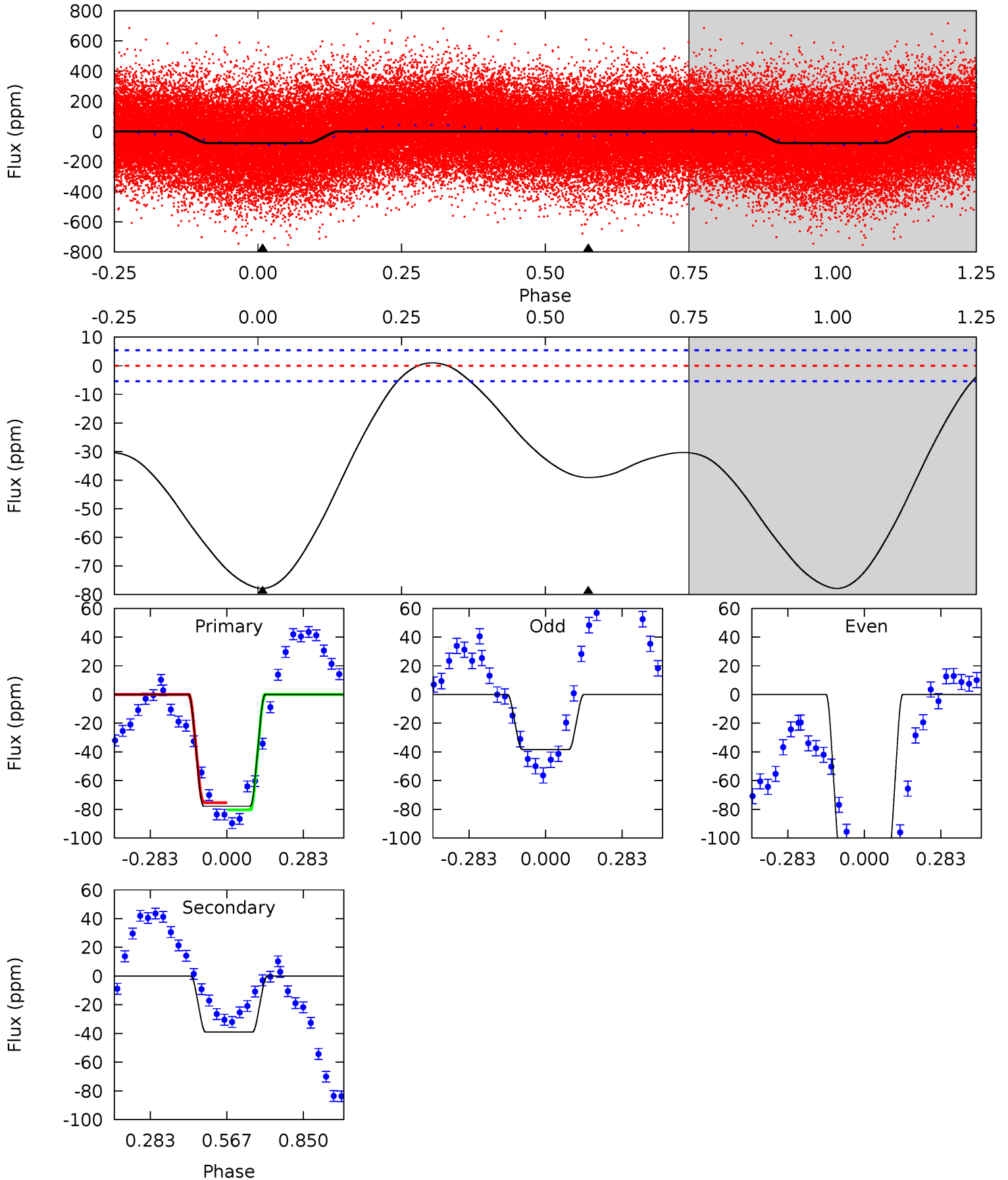
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
37.1	20.5	0	0	4.36	1.13	0.74	37.1	37.1	20.5	20.5	2.66	1.07	0.01	2.23



Alt Model-Shift Uniqueness Test

007465661-01, P = 1.180272 Days, E = 130.745516 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
62.1	31.2	0	0	4.34	1.07	1.47	62.1	62.1	31.2	31.2	31.0	0.97	0.01	1.93



Stellar Parameters For KIC 007465661

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6088^{+204}_{-167}	$3.476^{+0.392}_{-0.098}$	$0.120^{+0.250}_{-0.250}$	$4.112^{+0.753}_{-1.756}$	$1.845^{+0.139}_{-0.418}$	$0.037^{+0.111}_{-0.014}$
	+3%/-3%	+11%/-3%	+208%/-208%	+18%/-43%	+8%/-23%	+297%/-37%
Source	PHO1	FLK73	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 007465661-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-28 ± 1	$2.13^{+1.14}_{-1.06}$	4543^{+314}_{-467}	5902^{+2868}_{-1152}	$2.383^{+7.287}_{-1.355}$
Alt.	-39 ± 1	$3.80^{+1.28}_{-1.28}$	4526^{+325}_{-495}	4702^{+930}_{-680}	$1.039^{+1.196}_{-0.454}$

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 $A_{obs} \gg 1.0$

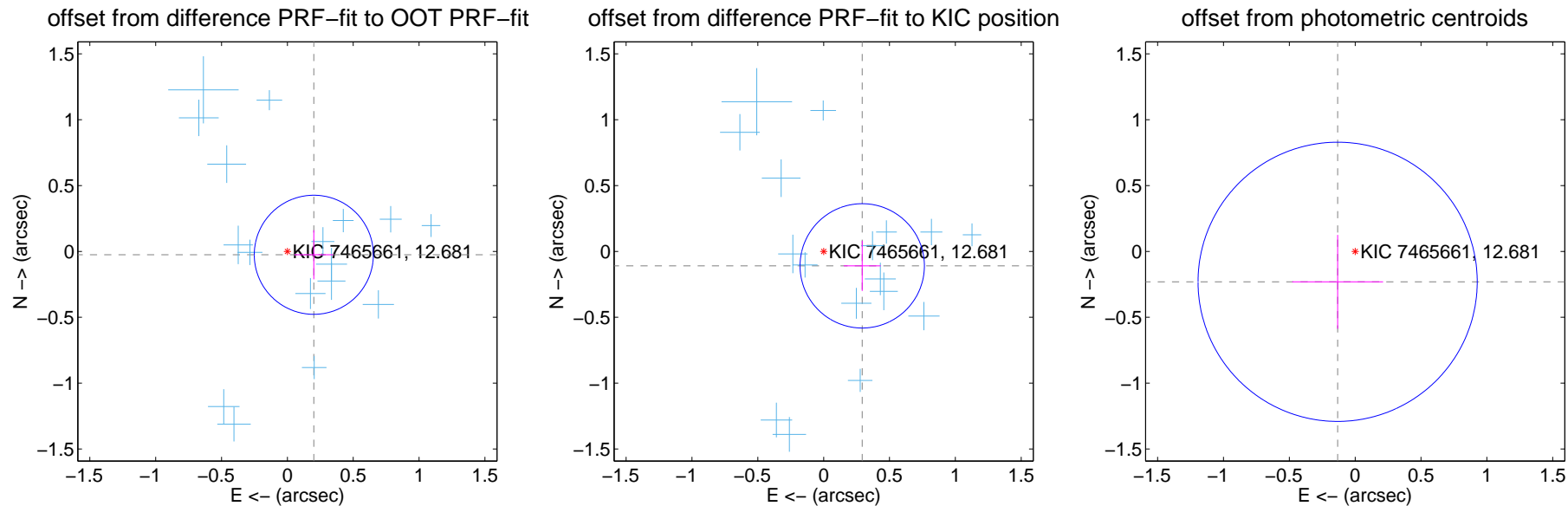
DV Centroid Data

Supplemental centroid analysis for 007465661-01. Kepler magnitude: 12.68. Transit SNR 14.01

There are 17 quarters with good PRF difference image offsets

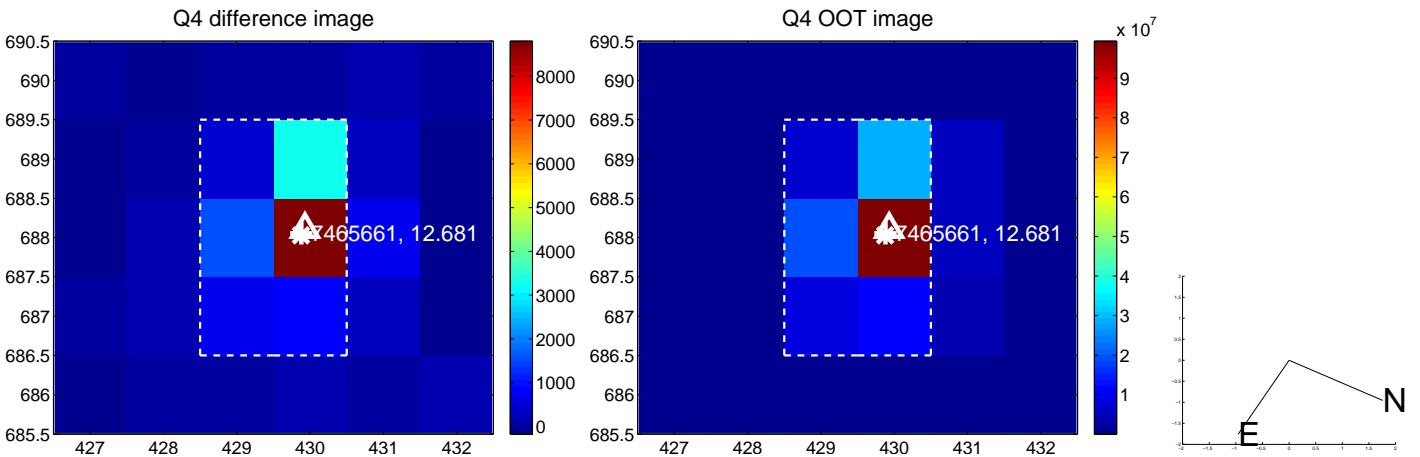
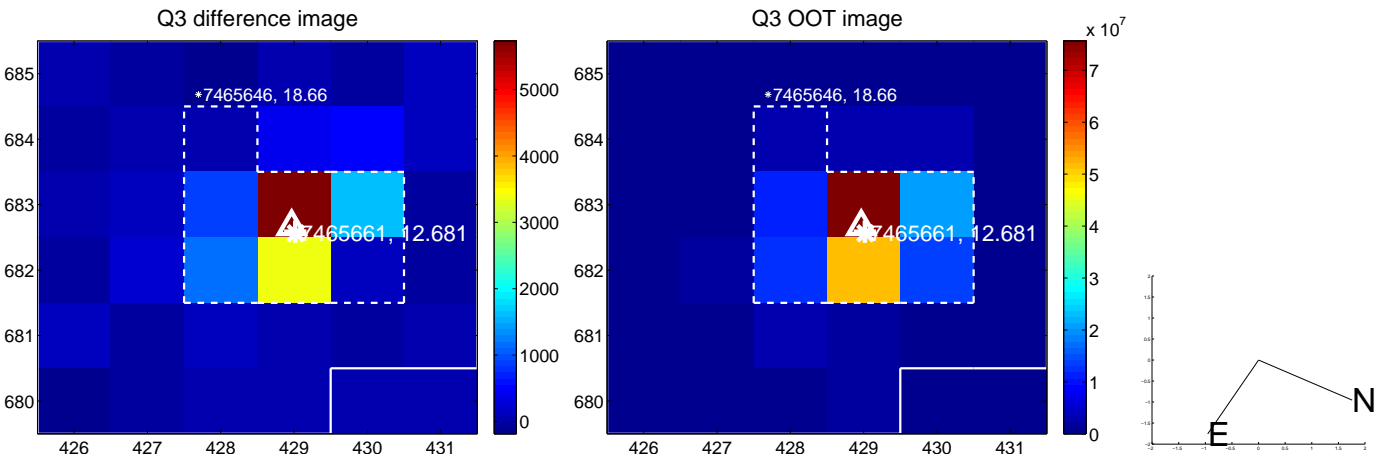
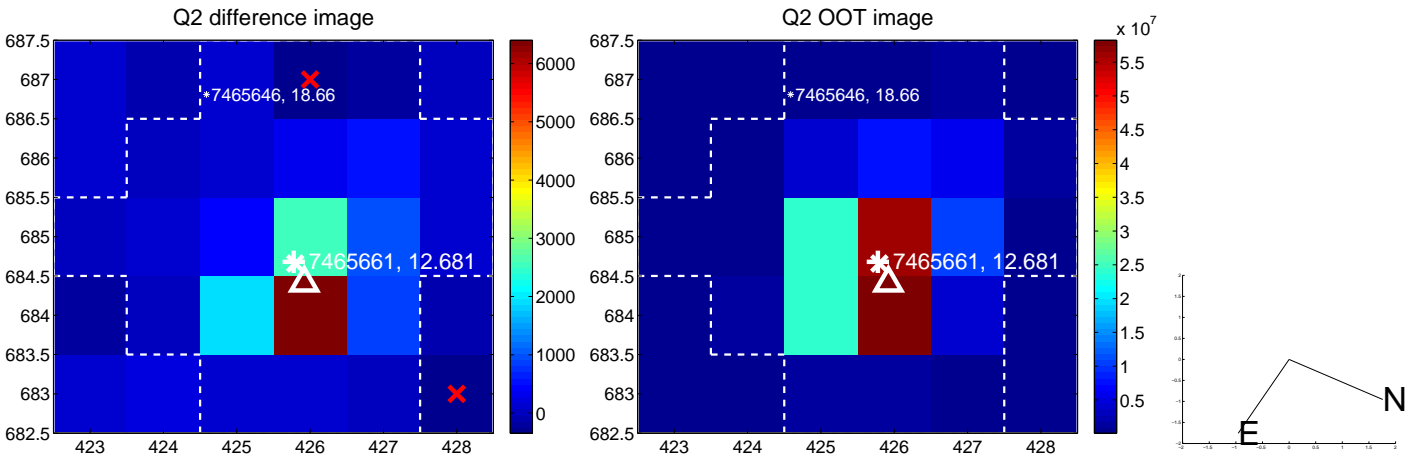
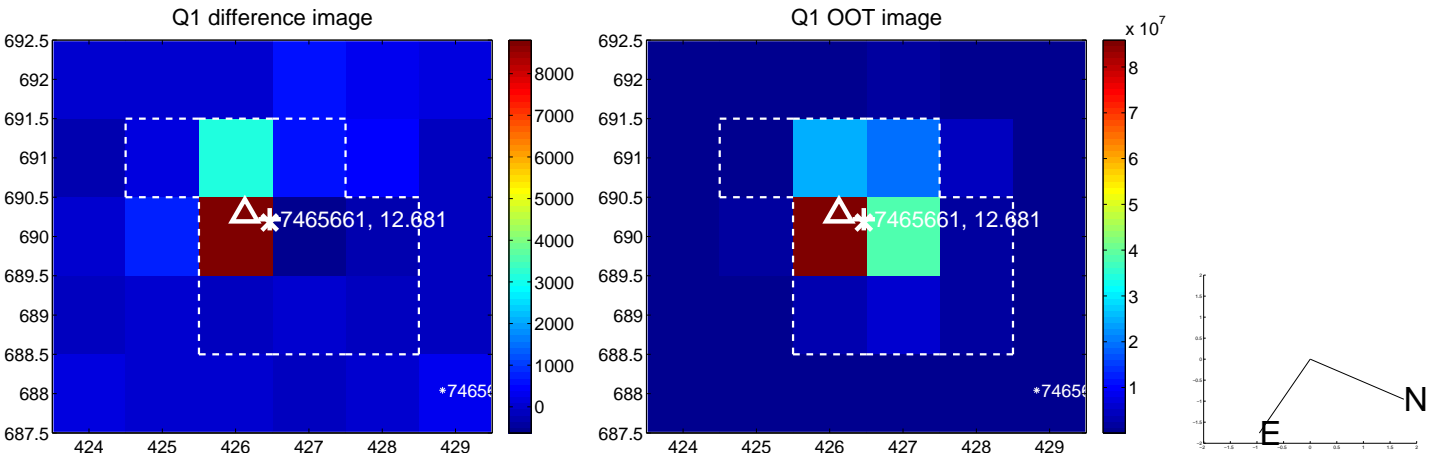
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.202 ± 0.151	1.34	-0.201 ± 0.148	-0.025 ± 0.186
PRF-fit source offset from KIC position	0.313 ± 0.157	1.99	-0.293 ± 0.140	-0.110 ± 0.190
photometric centroid source offset	0.27 ± 0.35	0.75	0.13 ± 0.34	-0.23 ± 0.36

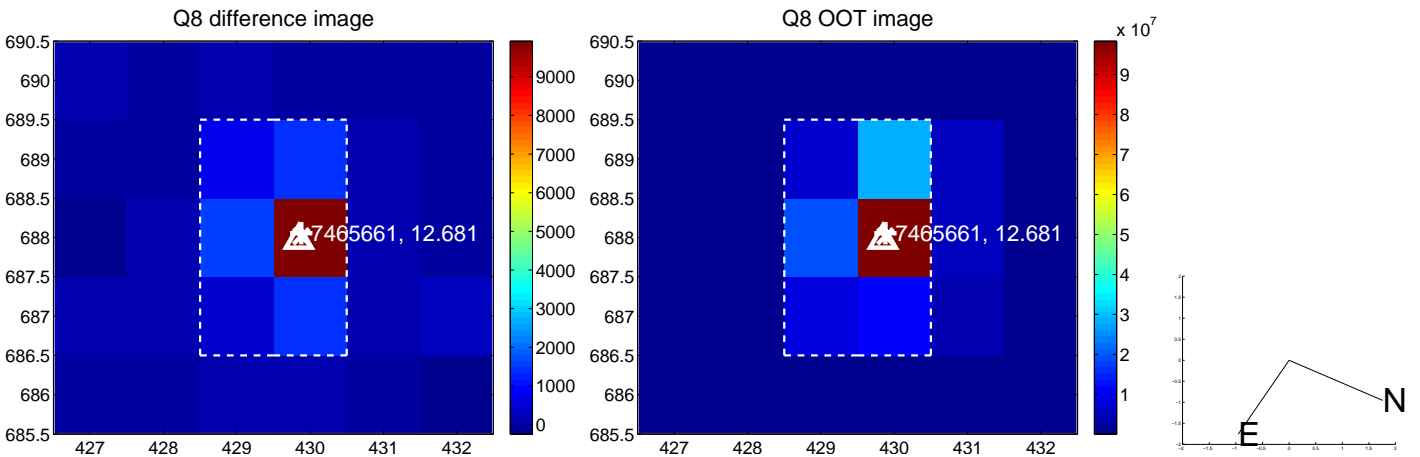
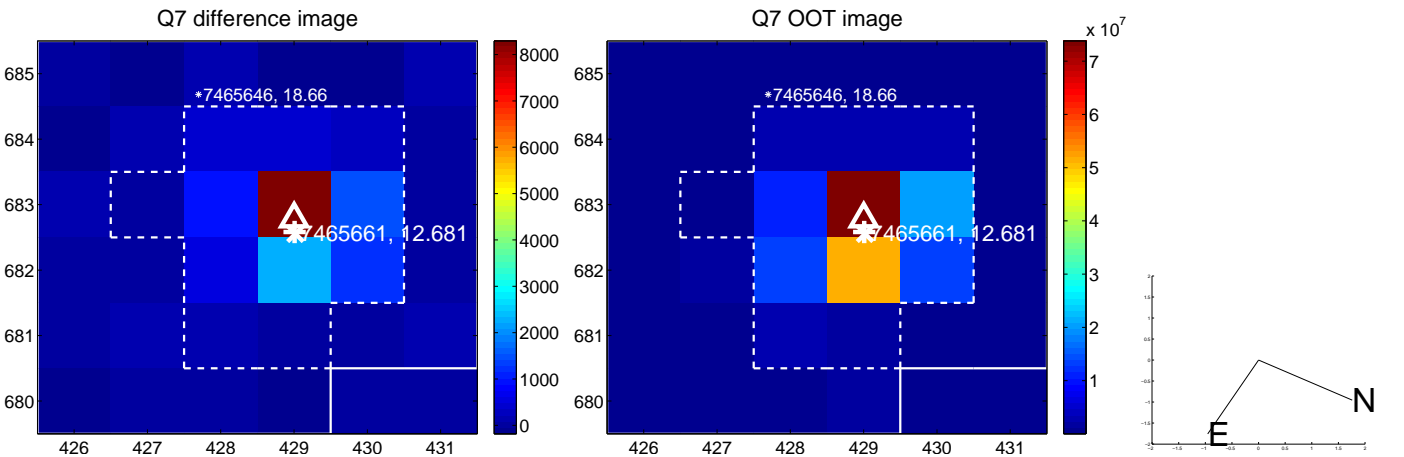
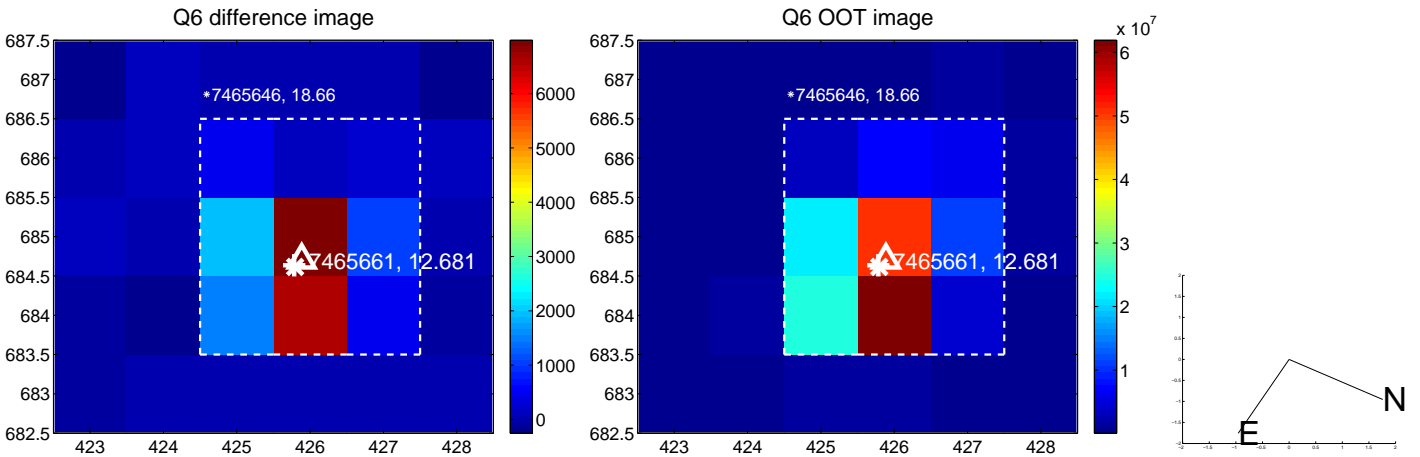
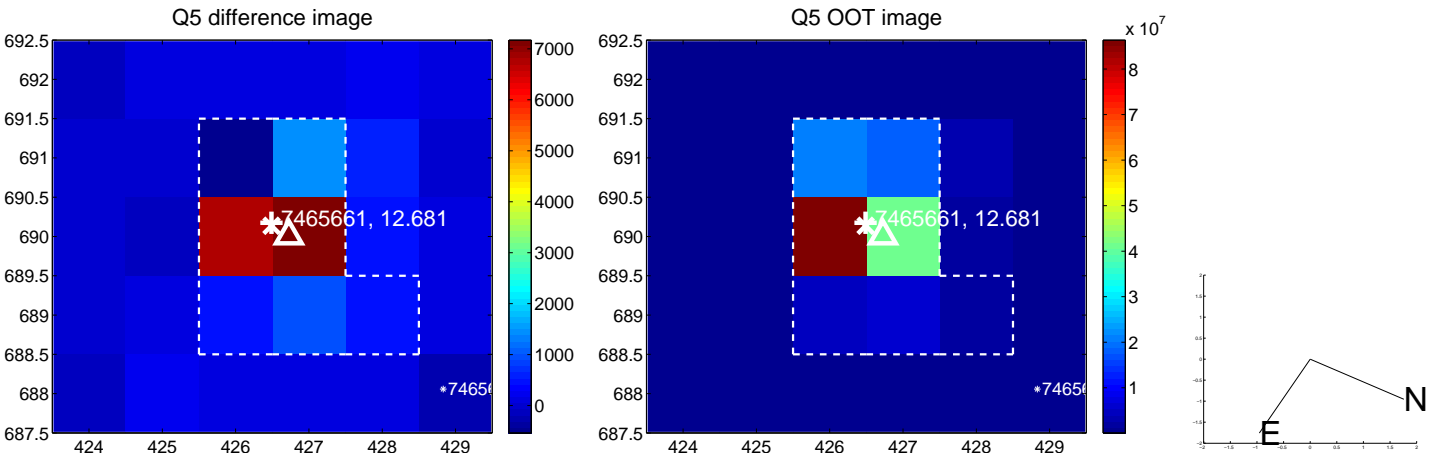


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

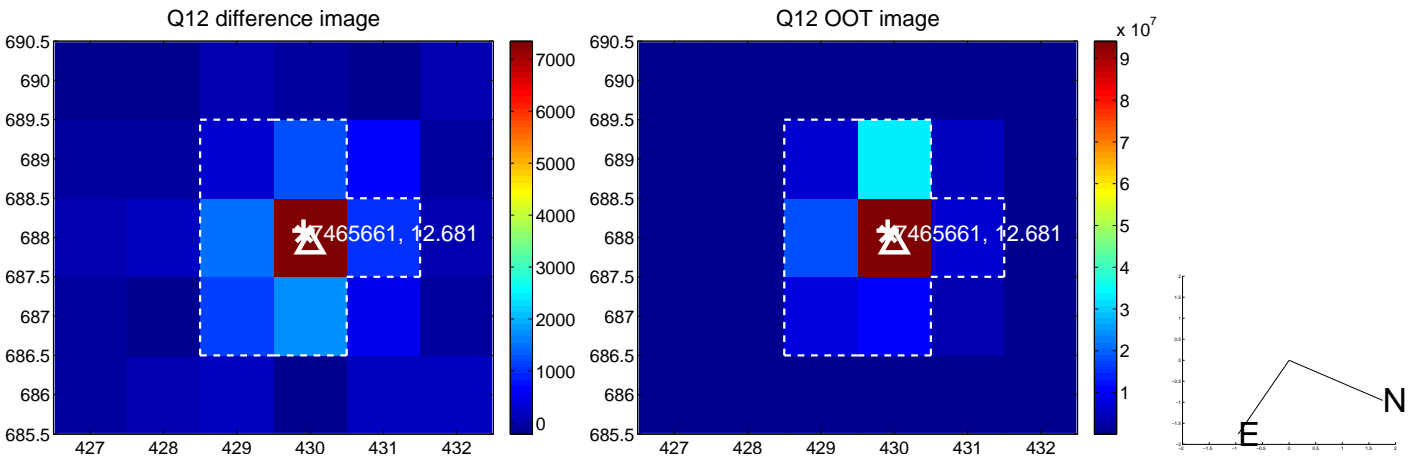
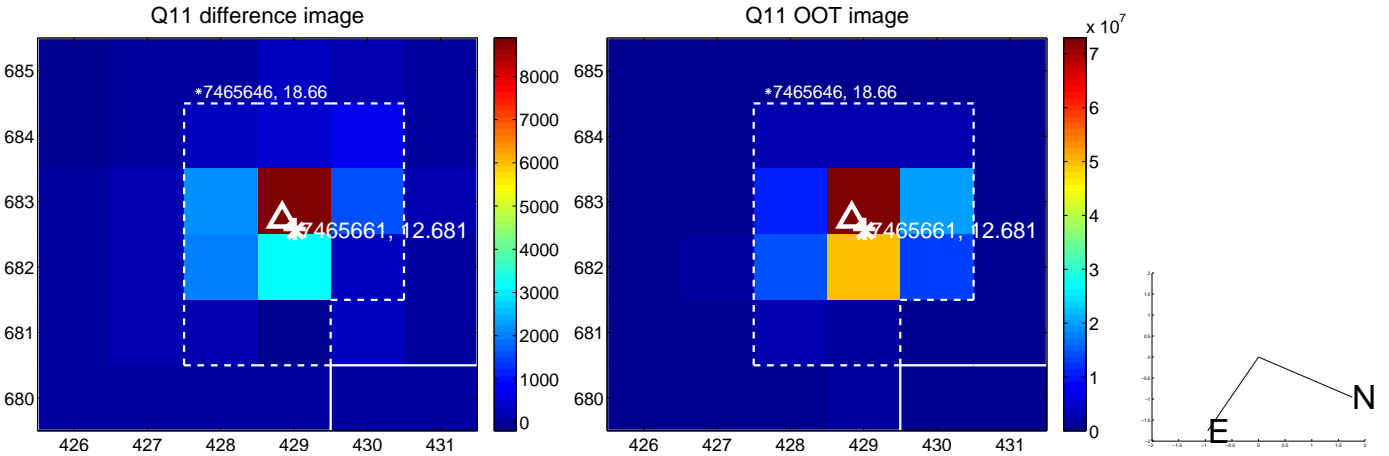
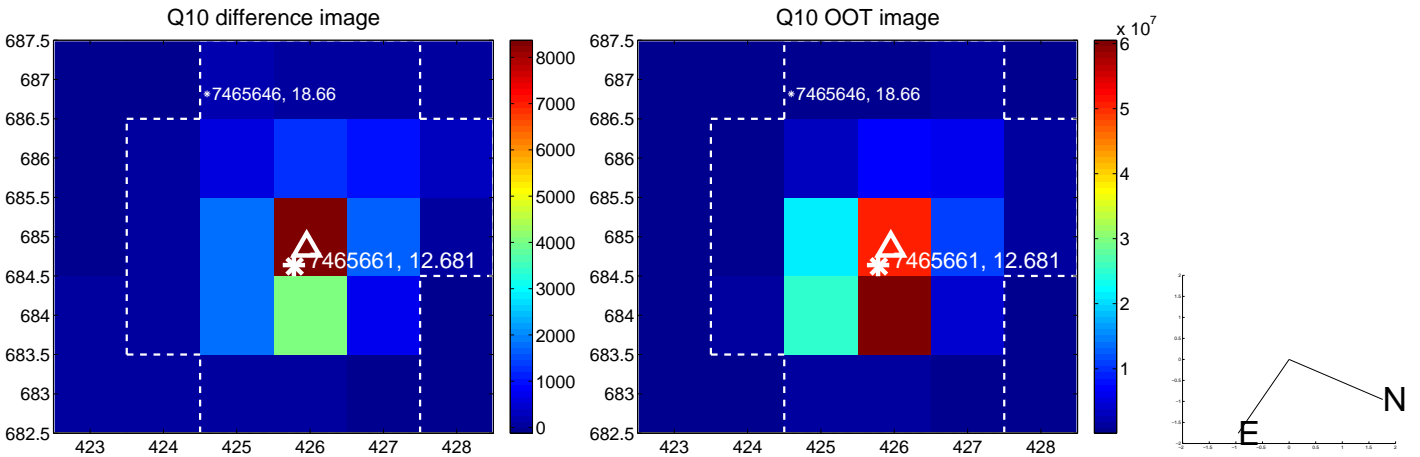
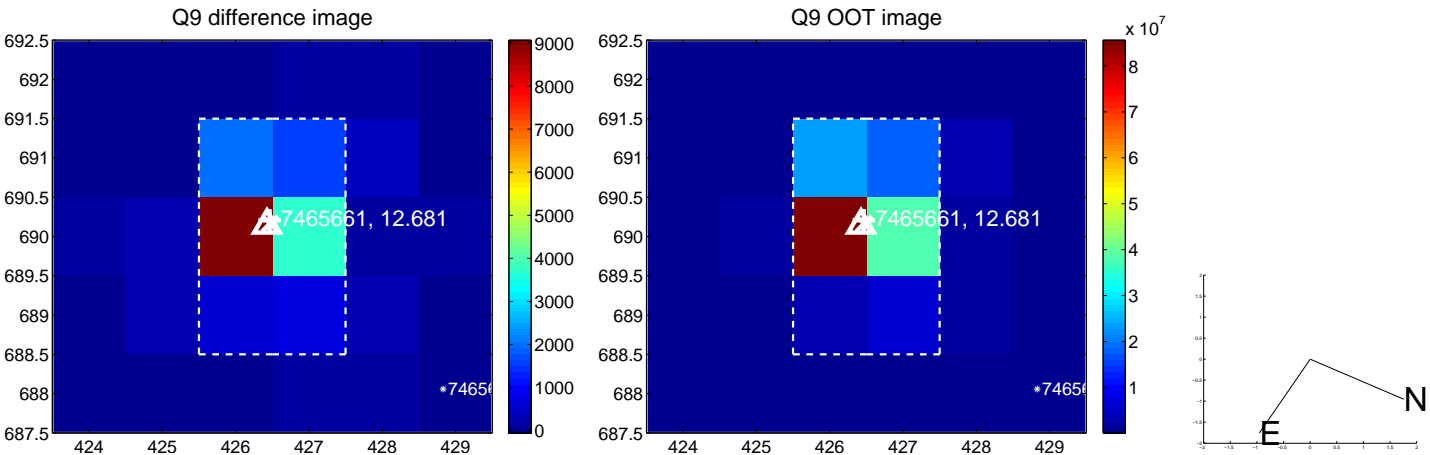
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



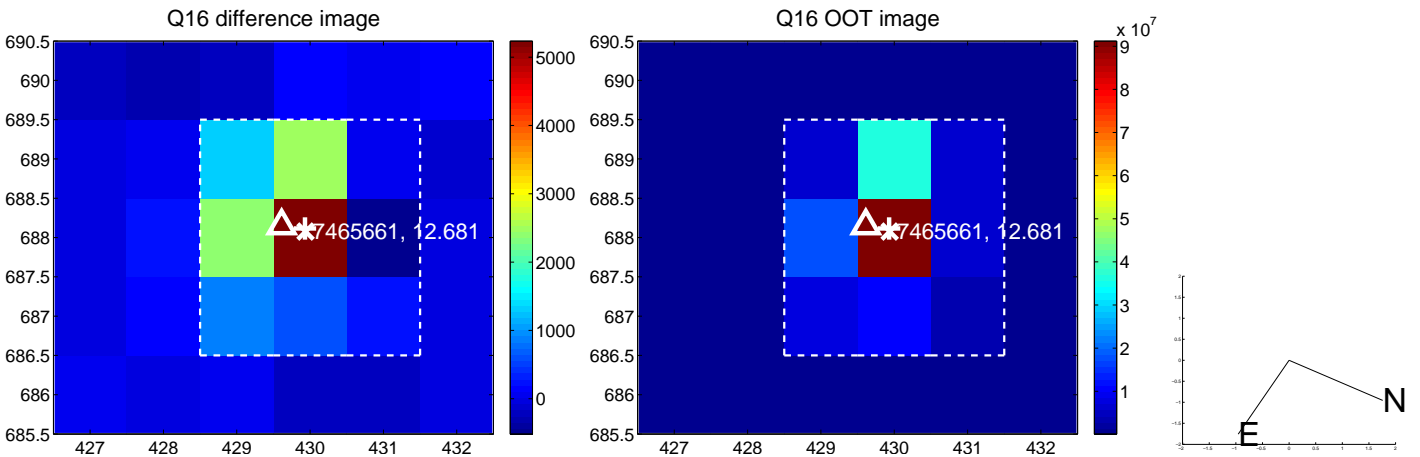
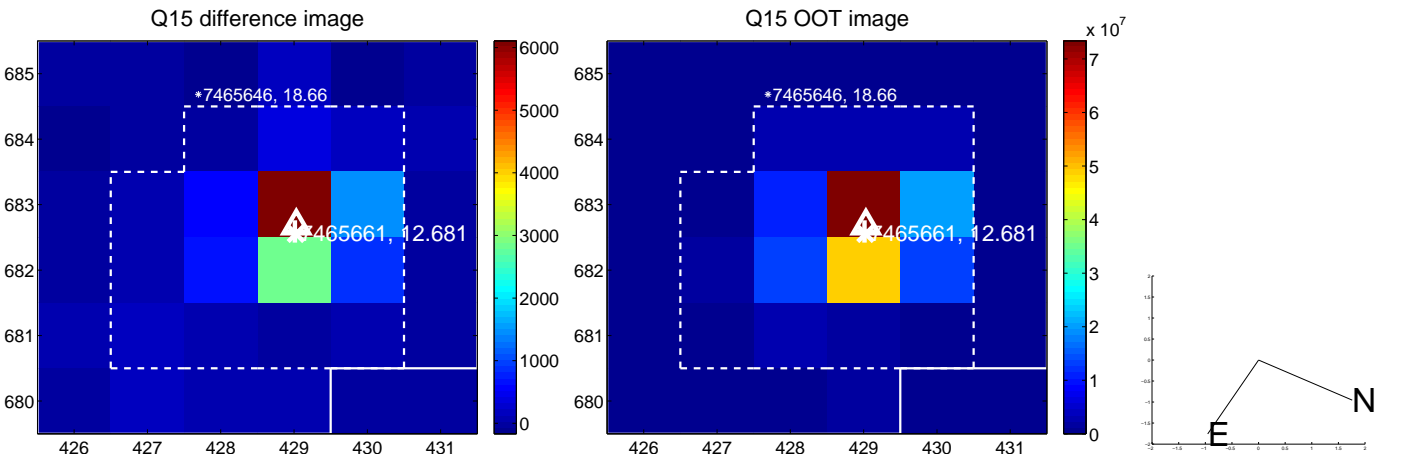
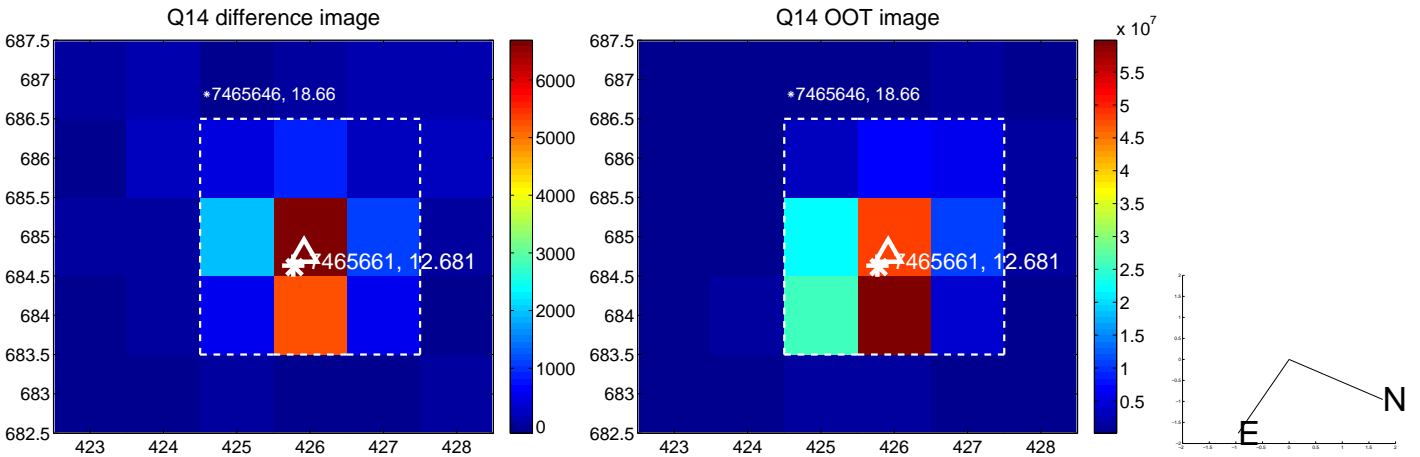
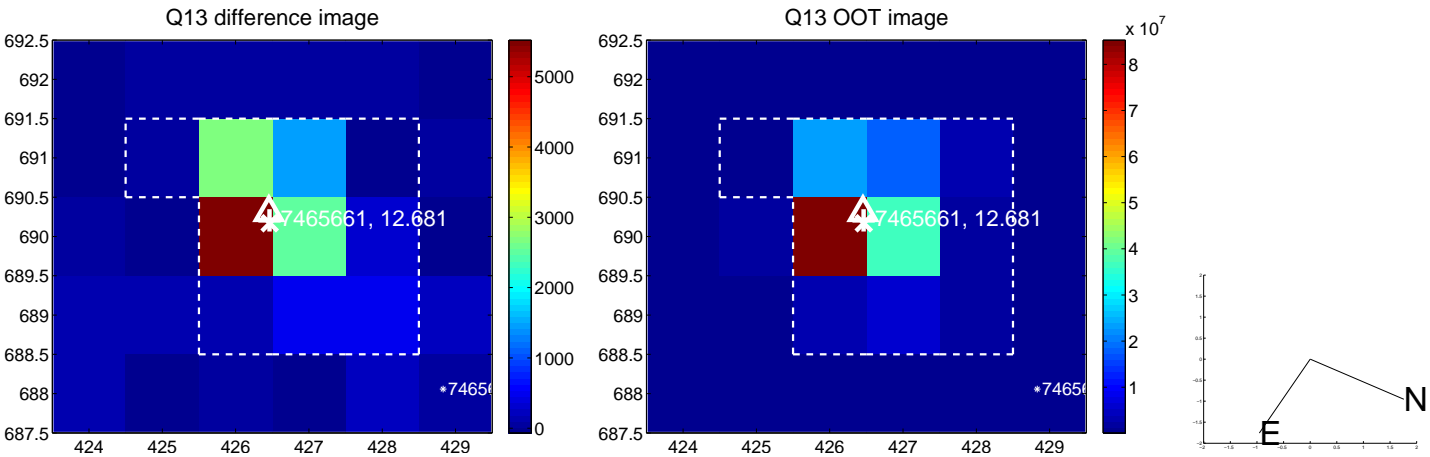
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



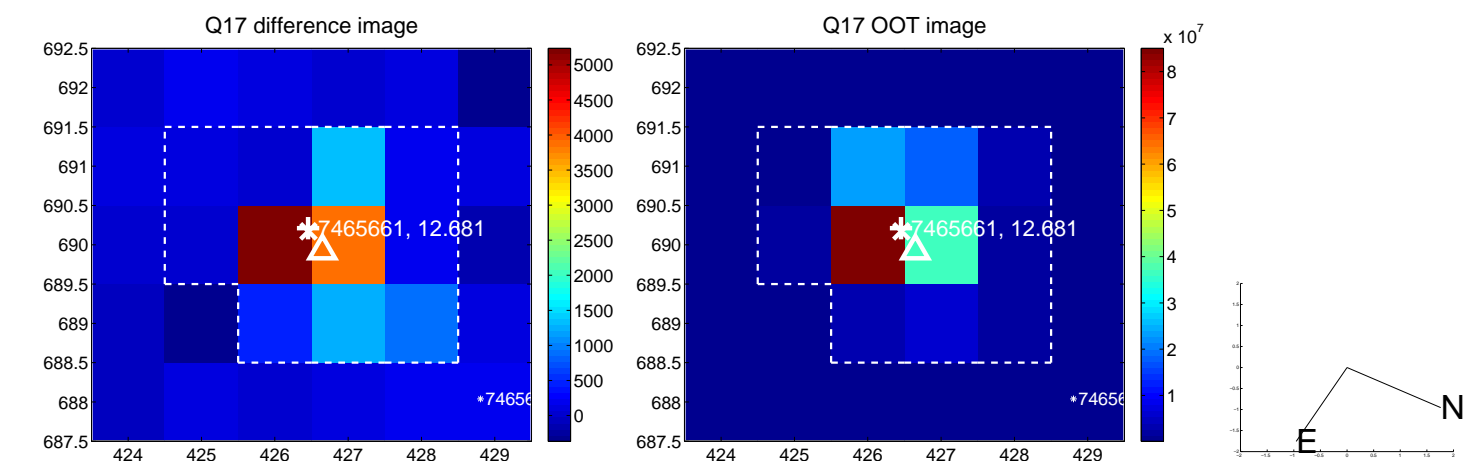
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



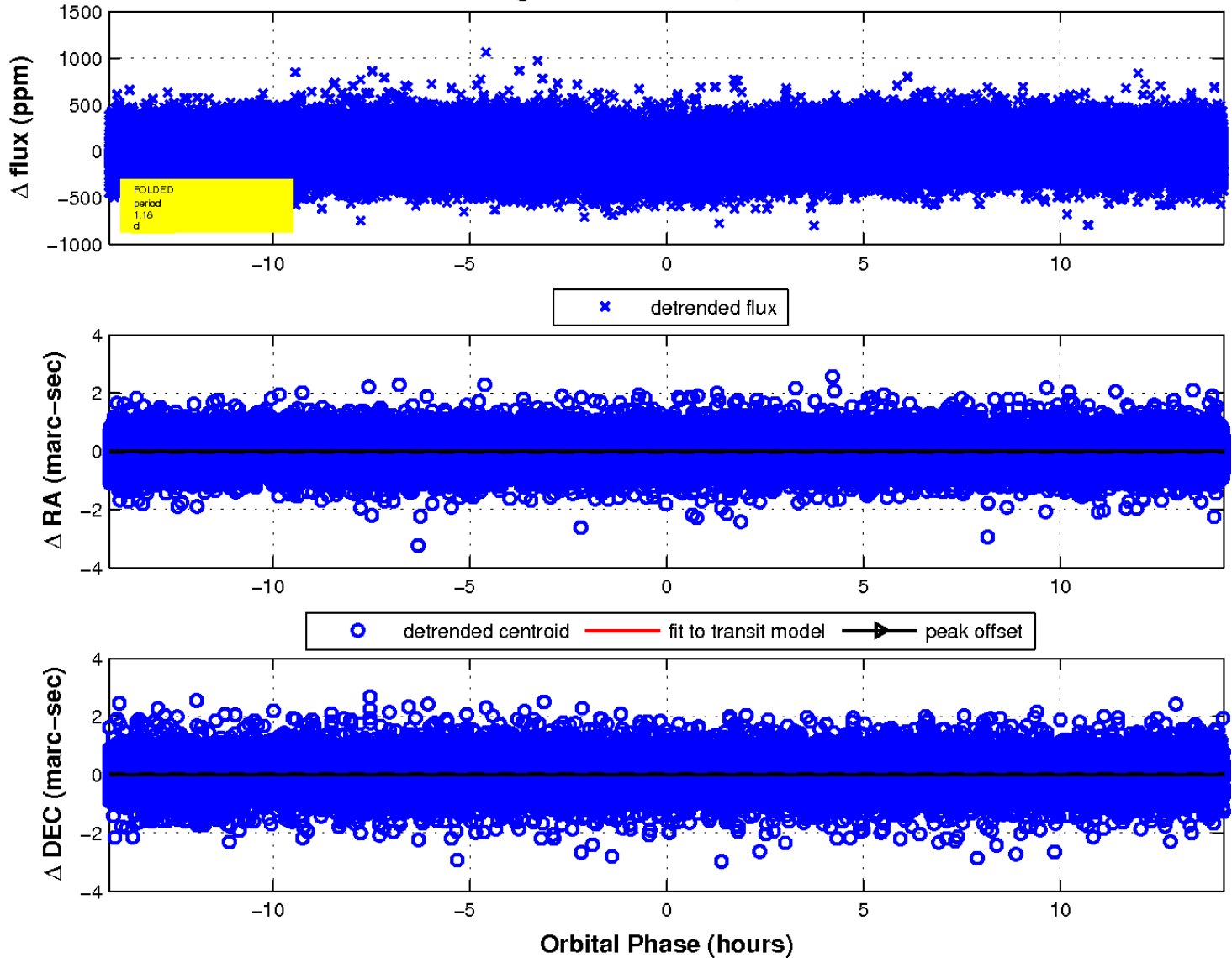
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

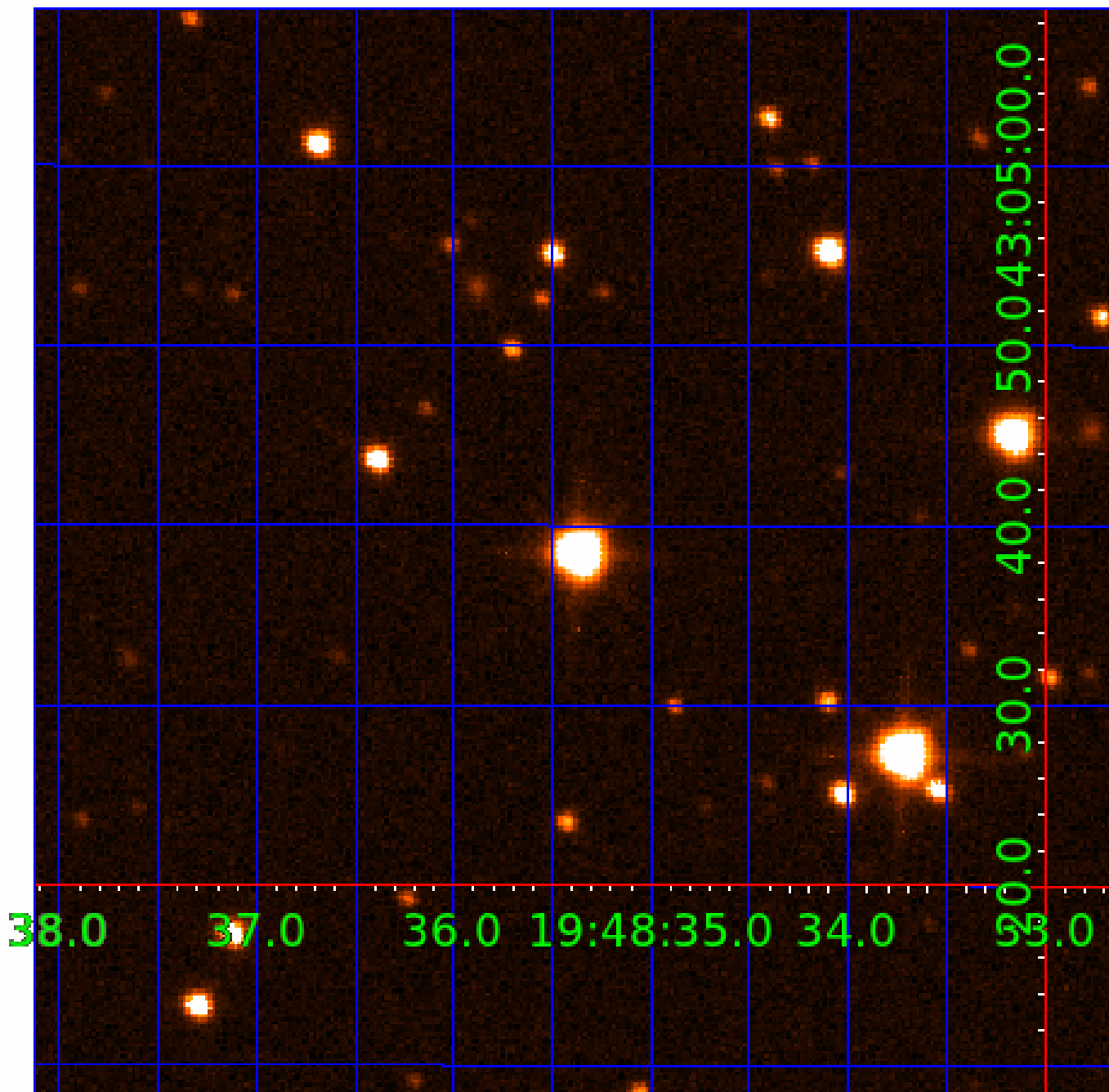


fluxWeightedCentroids, Planet 1 of 5



UKIRT Image

Declination



KIC 007465661

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})
007465661-01	OBS	No	1.180223	131.970075	31.0	6.819	15.1	14.0	4.11	6088	2.36	28942.97
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007465661-04	OBS	No	75.004390	181.428297	307.1	1.965	8.3	8.6	4.11	6088	8.19	114.12
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Robovetter Results

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007465661-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV
007465661-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007465661-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007465661-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_NOFITS

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

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

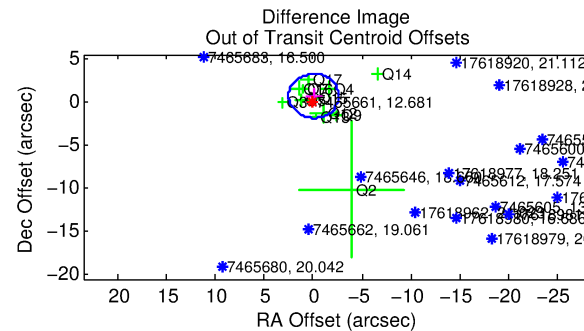
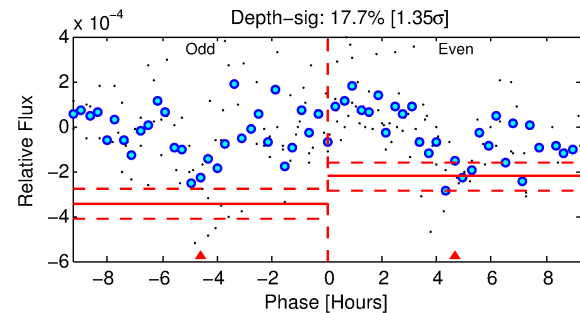
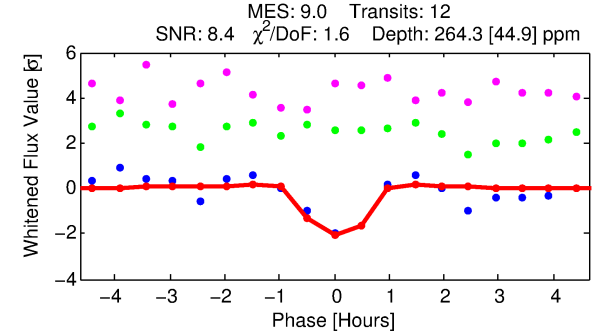
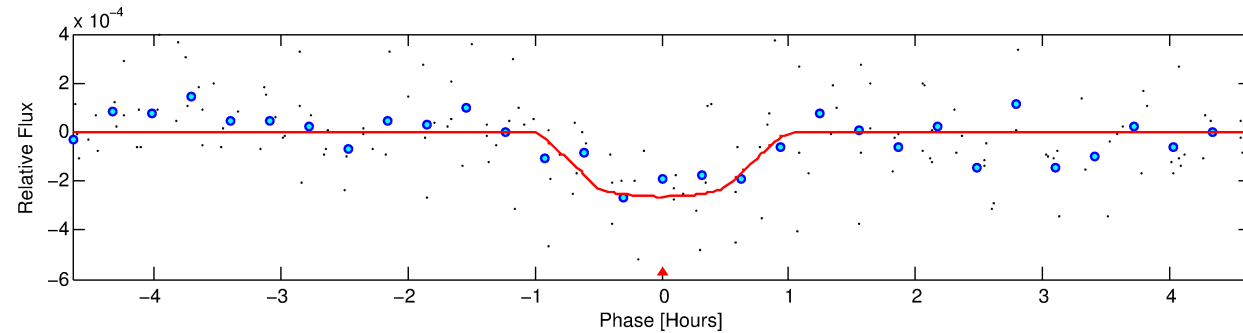
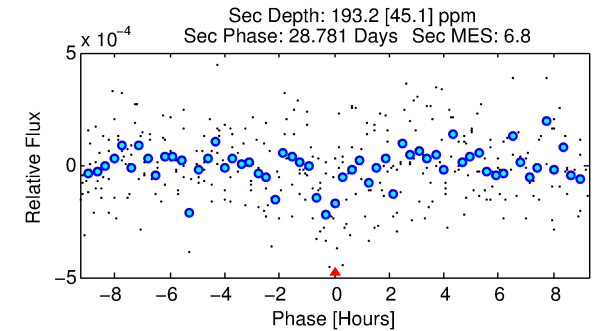
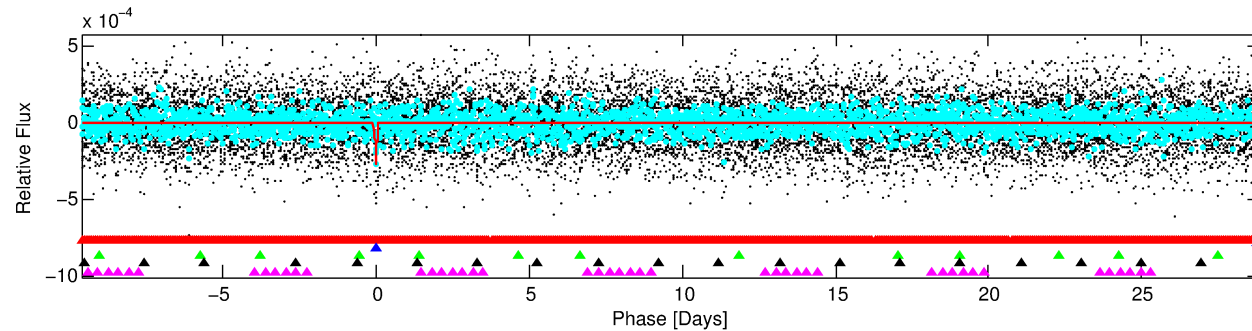
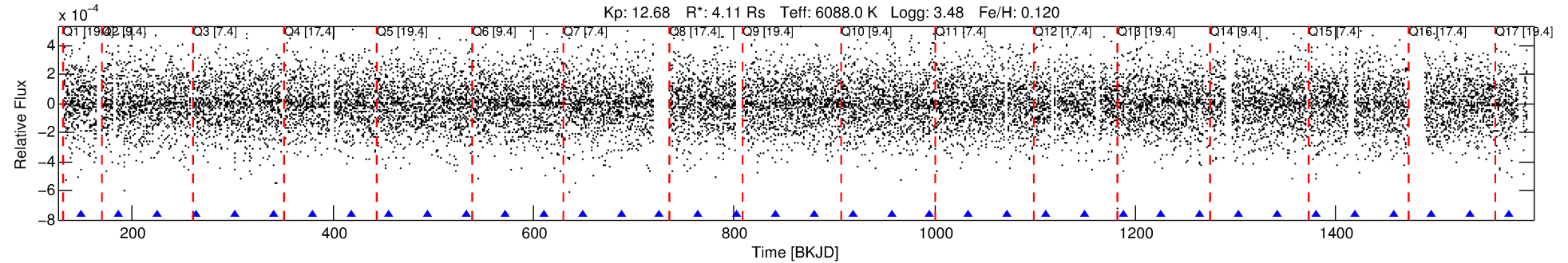
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007465661-02

No Significant Match Found

DV One-Page Summary

KIC: 7465661 Candidate: 2 of 5 Period: 38.488 d



DV Fit Results:

Period = 38.48788 [0.00032] d
Epoch = 148.5455 [0.0078] BKJD
Rp/R* = 0.0151 [0.0172]
a/R* = 181.83 [984.47]
b = 0.34 [14.32]
Seff = 277.80 [188.64]
Teq = 1041 [177] K
Rp = 6.77 [8.24] Re
a = 0.2737 [0.1134] AU
Ag = 173.69 [414.55] [0.42σ]
Teffp = 5843 [3354] K [1.43σ]

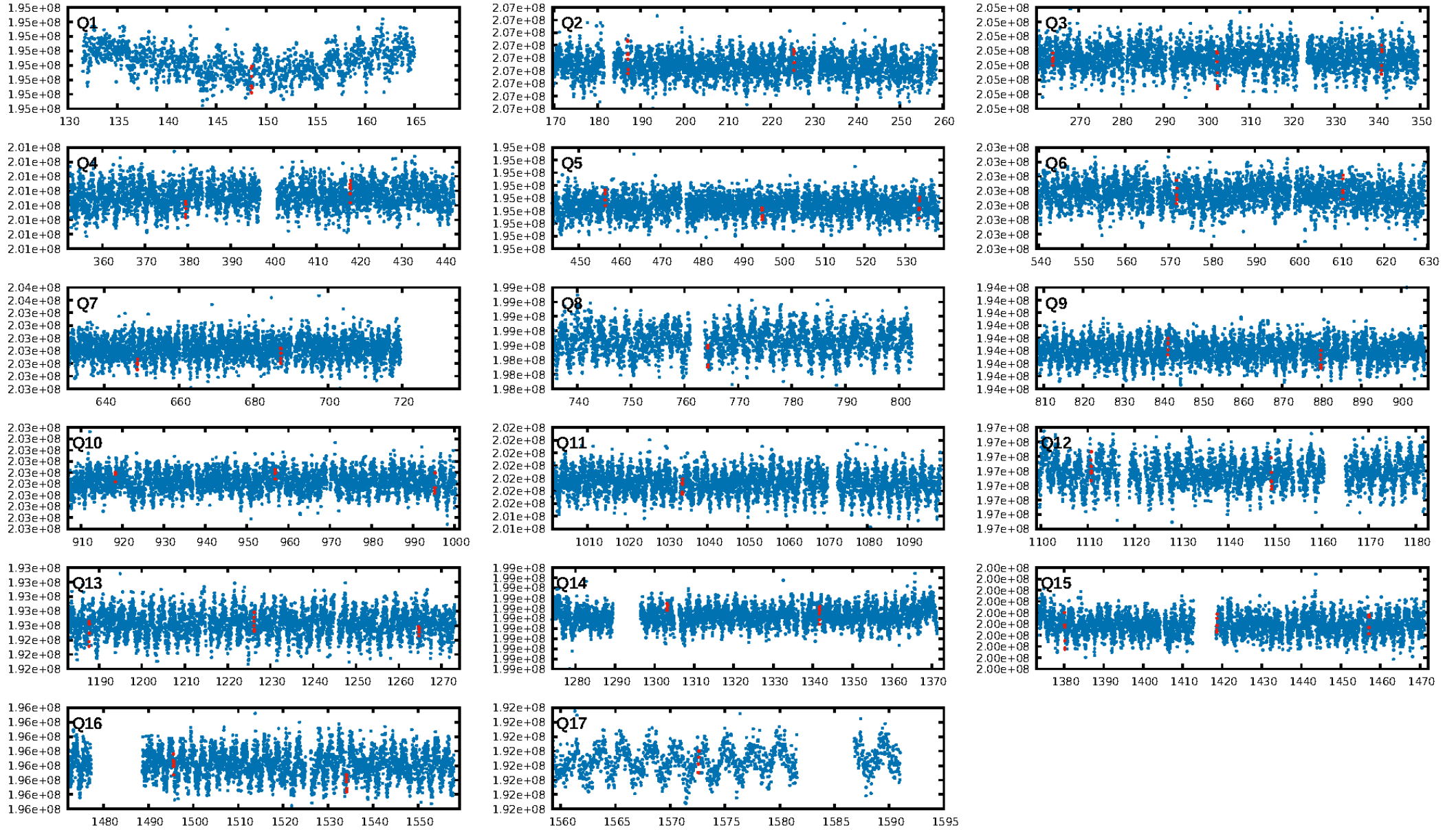
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [51.72σ]
LongPeriod-sig: 100.0% [350.40σ]
ModelChiSquare2-sig: 11.0%
ModelChiSquareGof-sig: 93.9%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: -0.7463
Centroid-sig: 51.8%
Centroid-so: 0.302 arcsec [0.63σ]
OotOffset-rm: 0.679 arcsec [0.80σ]
KicOffset-rm: 0.606 arcsec [0.66σ]
OotOffset-st: 2/3/3/4 [12]
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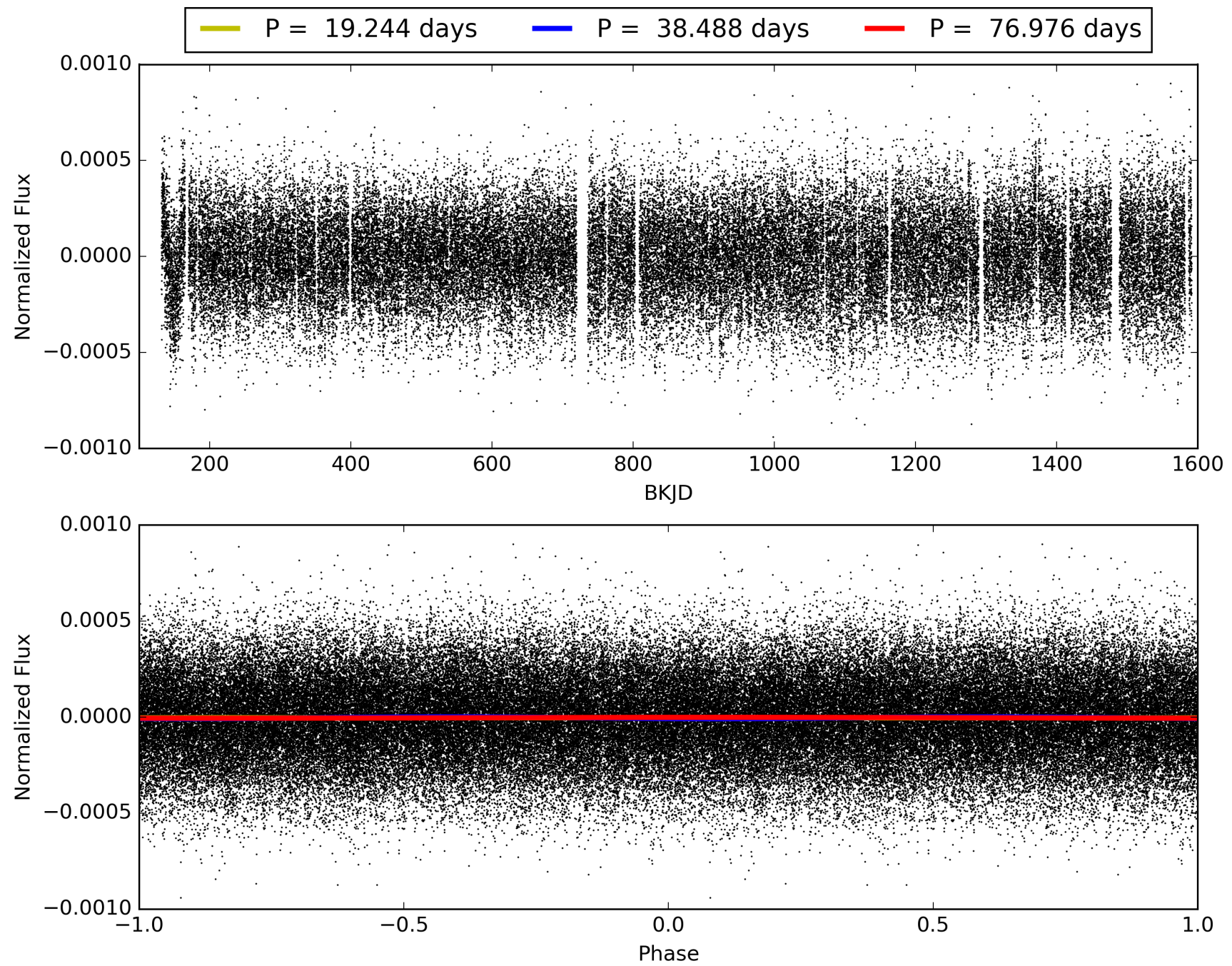
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:09:02 Z

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

TCE 007465661-02, PDC Light Curves

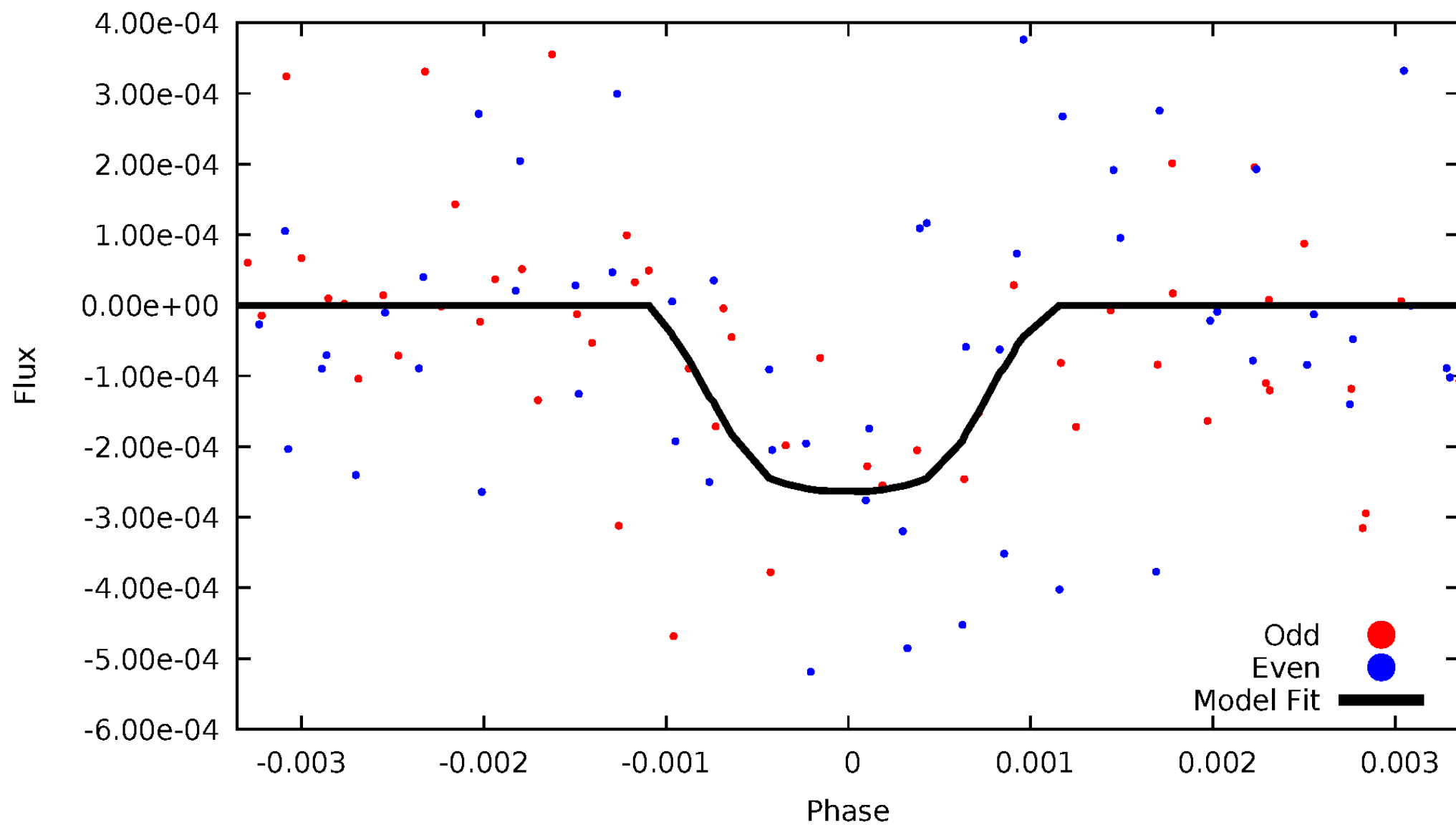


TCE 007465661-02



DV Odd/Even

TCE 007465661-02

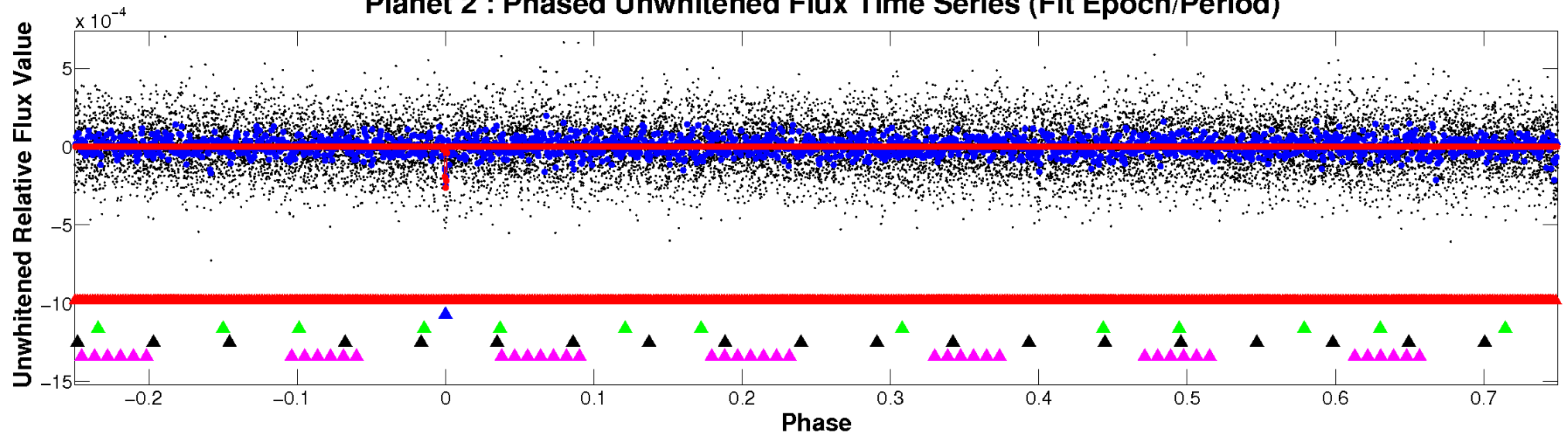


ALT Odd/Even

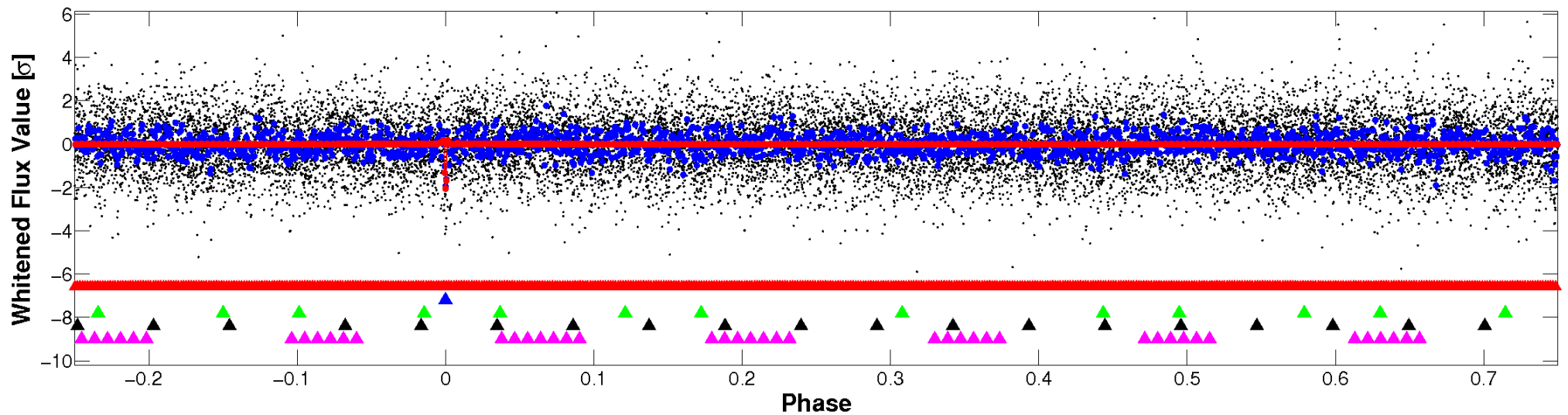
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

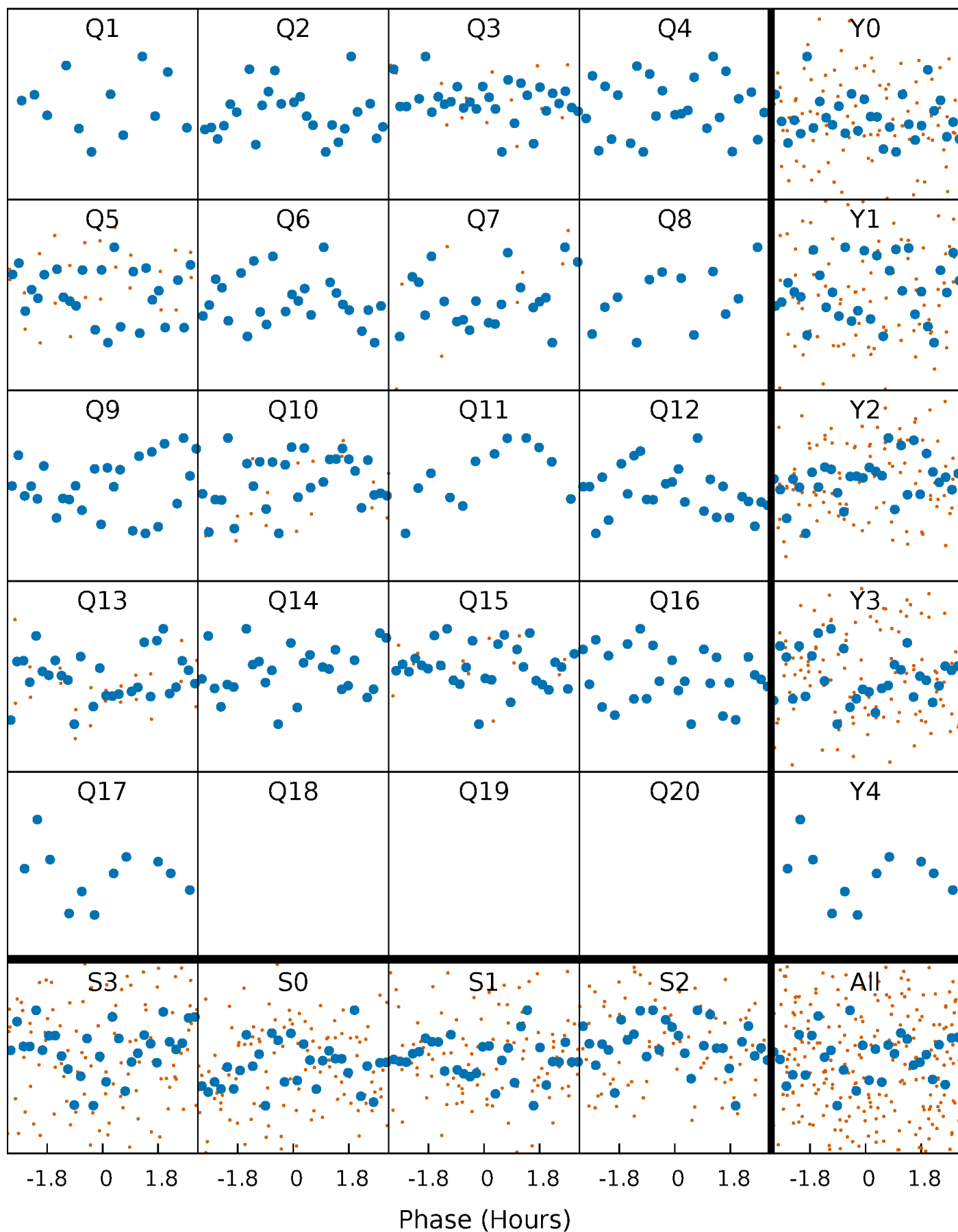


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



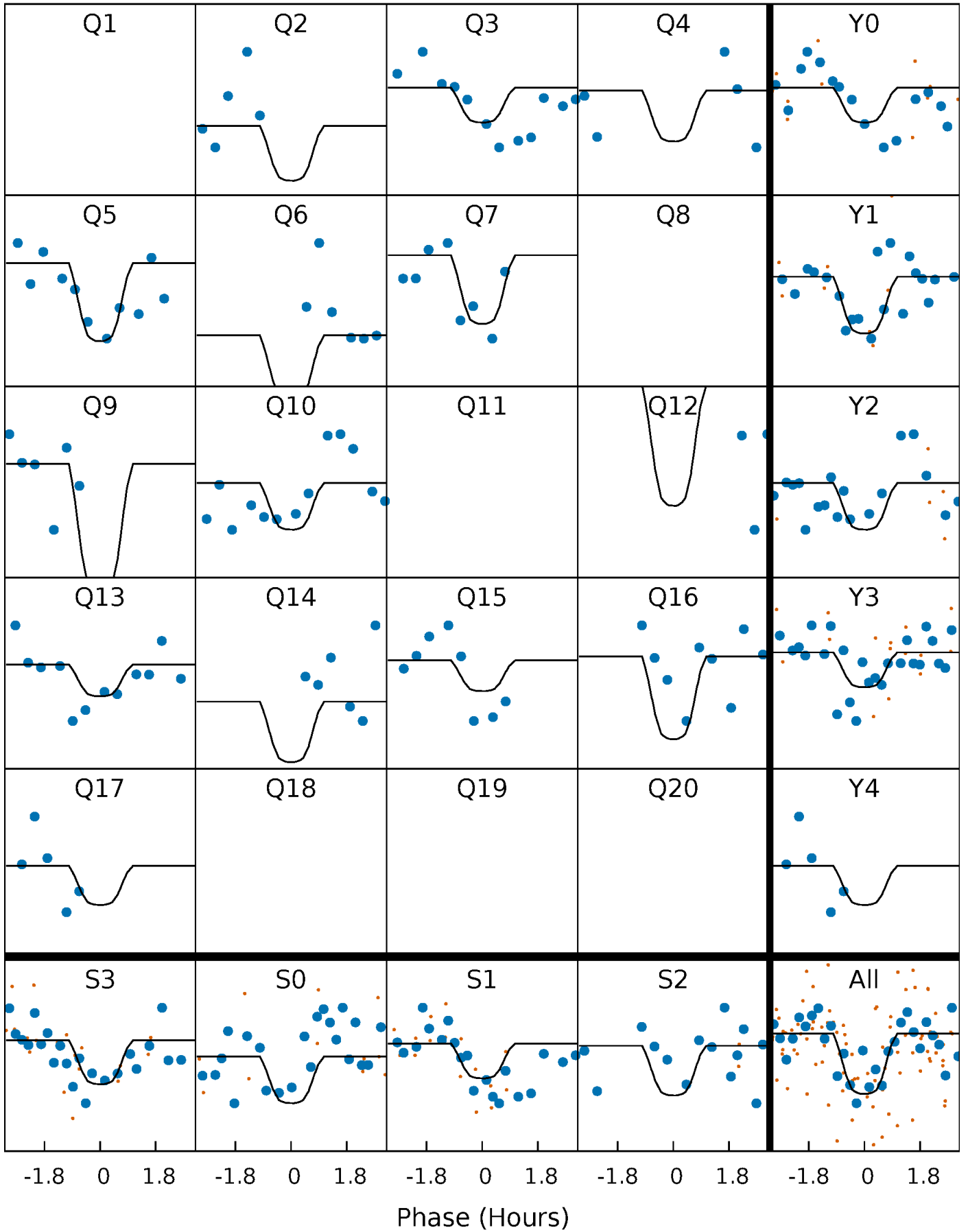
PDC Quarter-Phased Transit Curves

TCE 007465661-02 $P = 38.487883$ Days $T_0 = 148.545501$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007465661-02 P= 38.487883 Days $T_0=148.545501$ (BKJD)

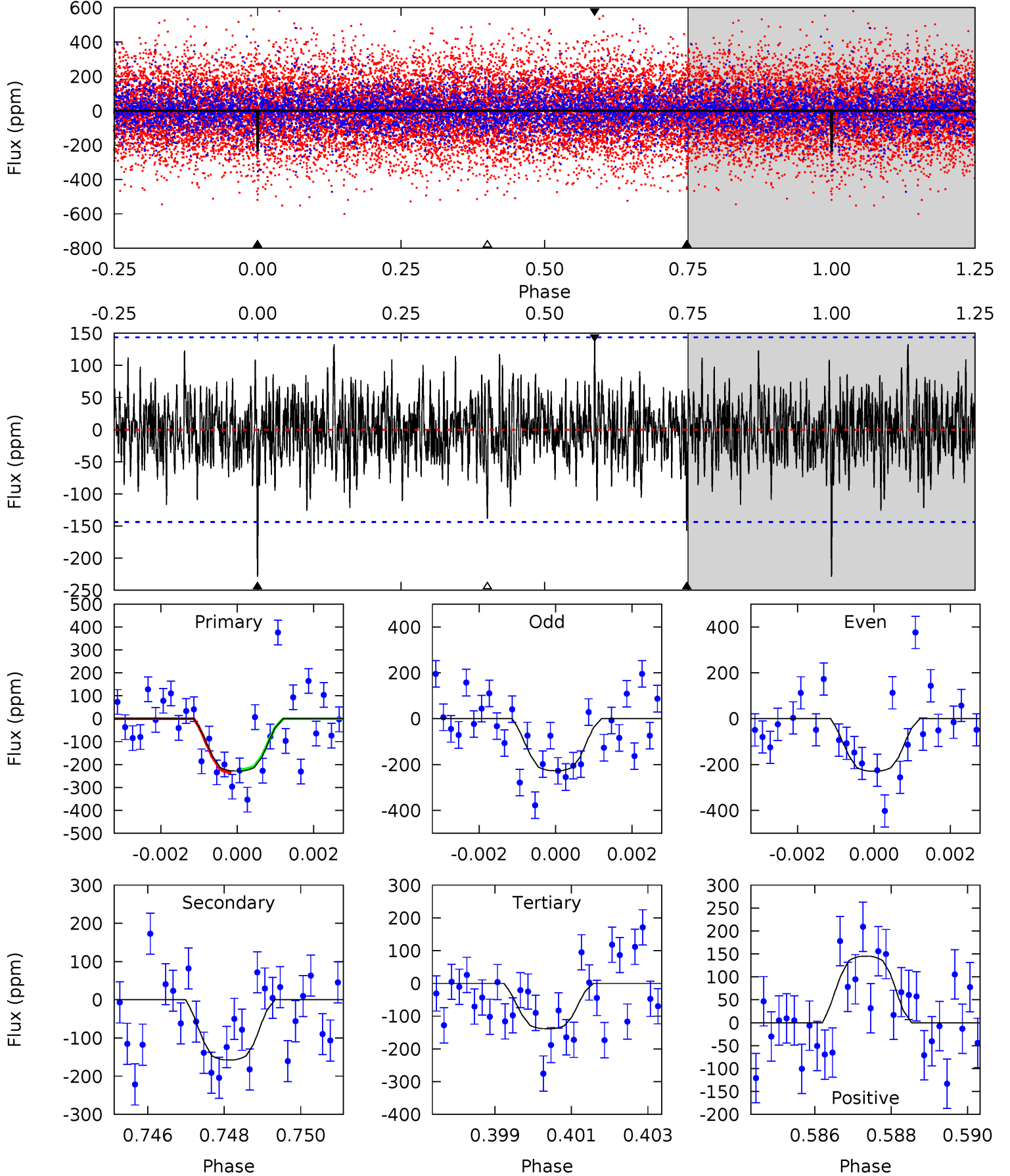


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007465661-02, $P = 38.487883$ Days, $E = 110.057618$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.49	5.85	5.15	5.39	5.33	3.10	1.46	3.34	3.10	0.71	0.46	0.04	0.75	0.39	0.27



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007465661

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6088^{+204}_{-167}	$3.476^{+0.392}_{-0.098}$	$0.120^{+0.250}_{-0.250}$	$4.112^{+0.753}_{-1.756}$	$1.845^{+0.139}_{-0.418}$	$0.037^{+0.111}_{-0.014}$
	+3%/-3%	+11%/-3%	+208%/-208%	+18%/-43%	+8%/-23%	+297%/-37%
Source	PHO1	FLK73	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 007465661-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-158 ± 27	$7.97^{+6.83}_{-5.37}$	1419^{+90}_{-163}	4973^{+3550}_{-1013}	102^{+795}_{-72}
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

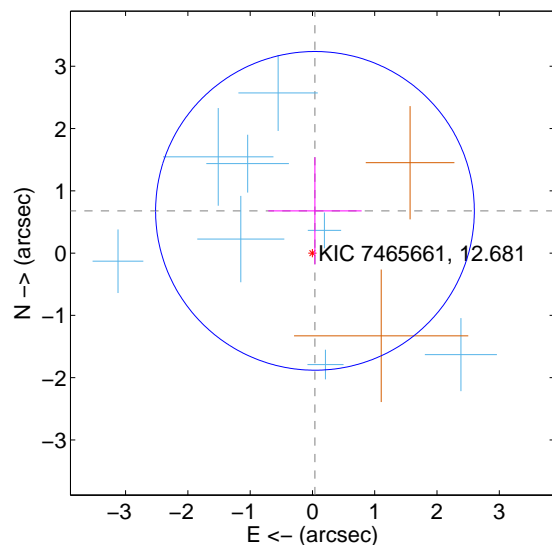
Supplemental centroid analysis for 007465661-02. Kepler magnitude: 12.68. Transit SNR 8.43

There are 8 quarters with good PRF difference image offsets

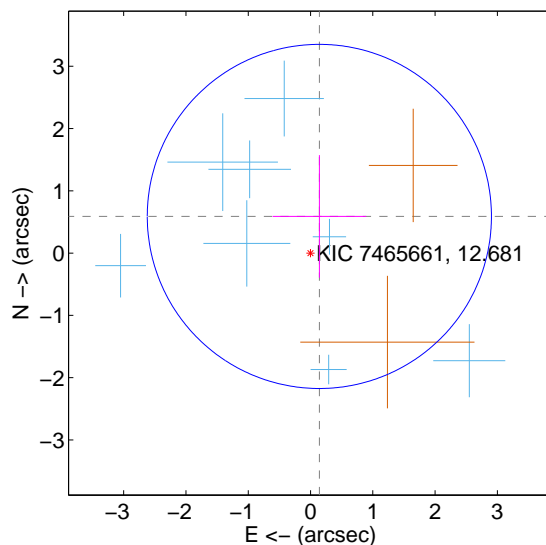
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.679 ± 0.853	0.80	-0.040 ± 0.750	0.678 ± 0.860
PRF-fit source offset from KIC position	0.606 ± 0.921	0.66	-0.142 ± 0.752	0.589 ± 0.984
photometric centroid source offset	0.30 ± 0.48	0.63	0.15 ± 0.46	-0.26 ± 0.49

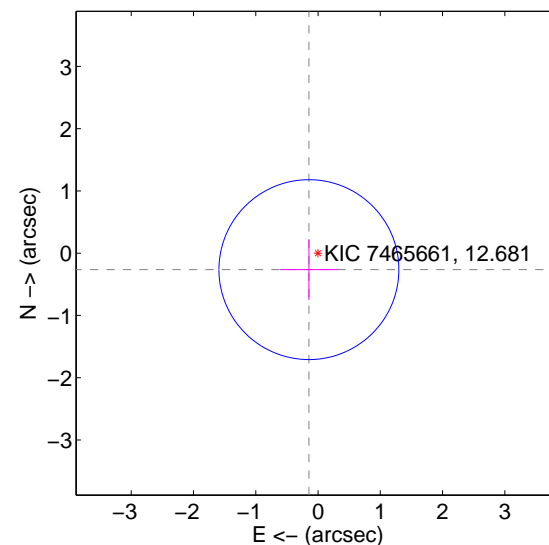
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

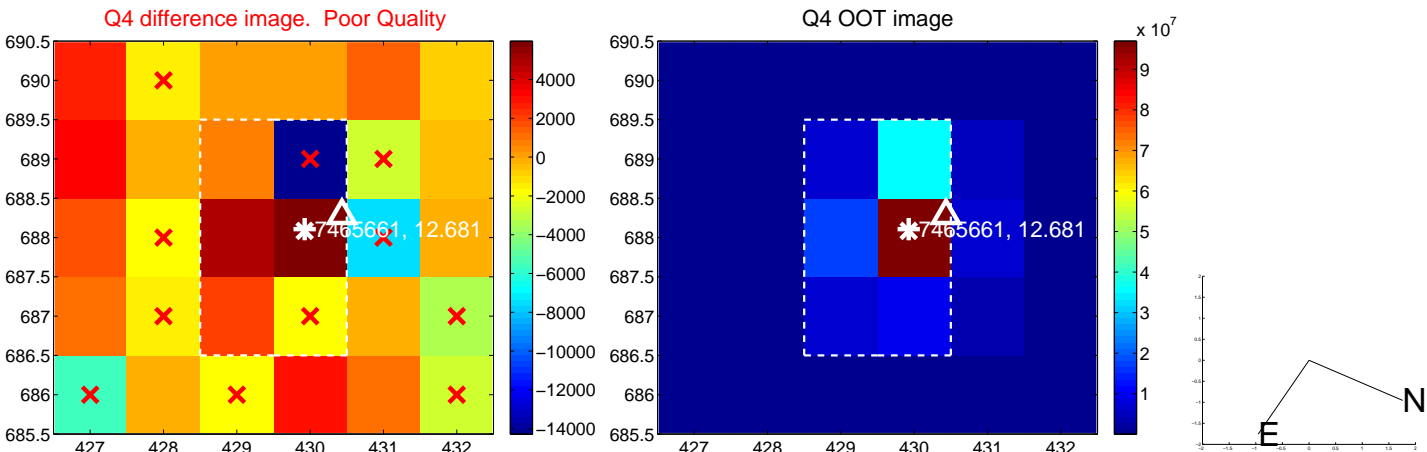
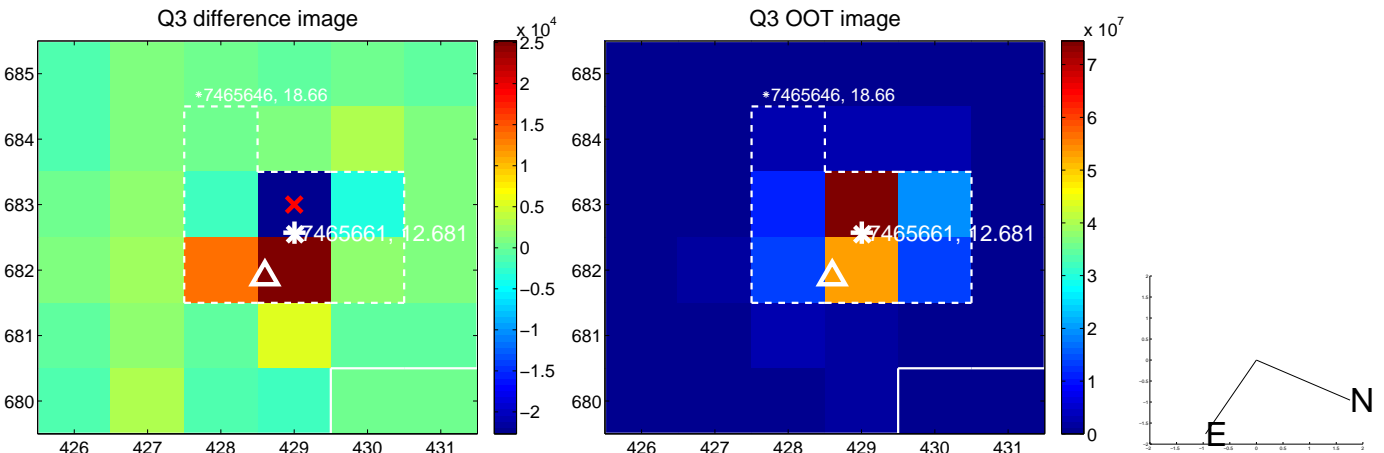
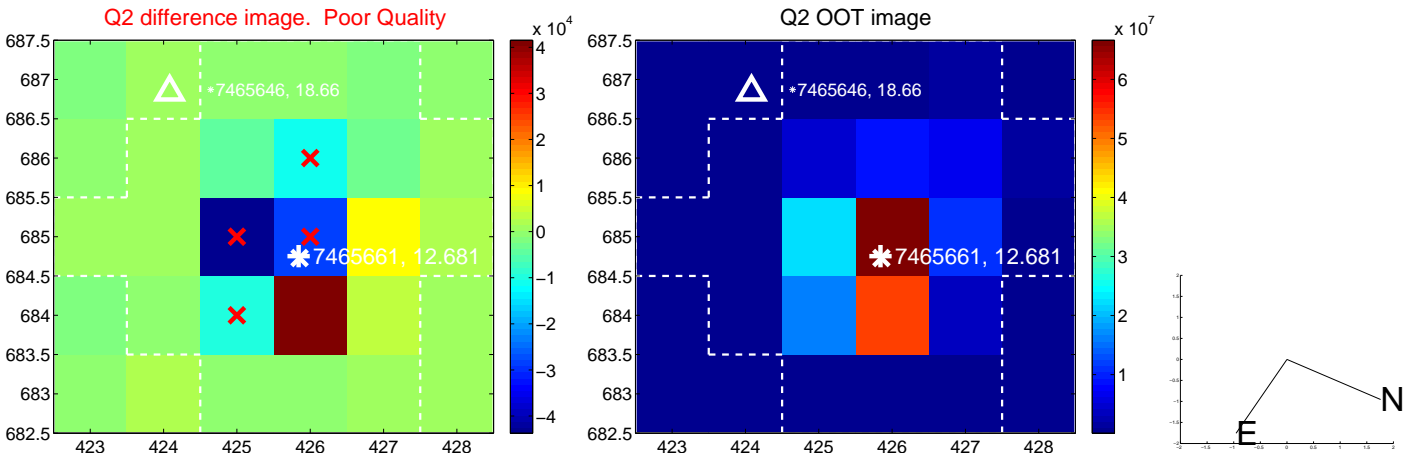
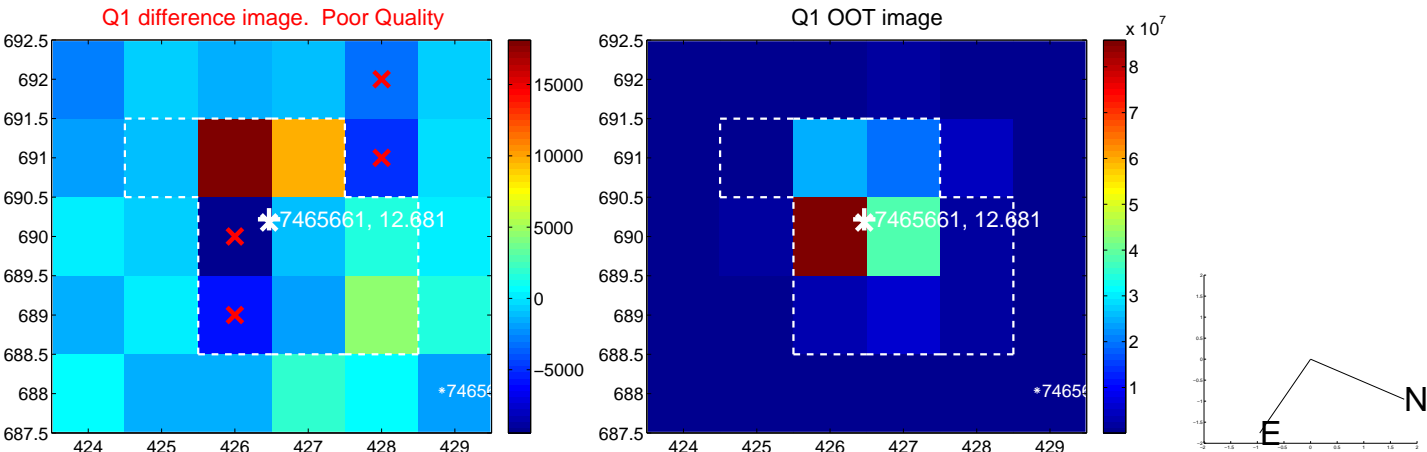


offset from photometric centroids

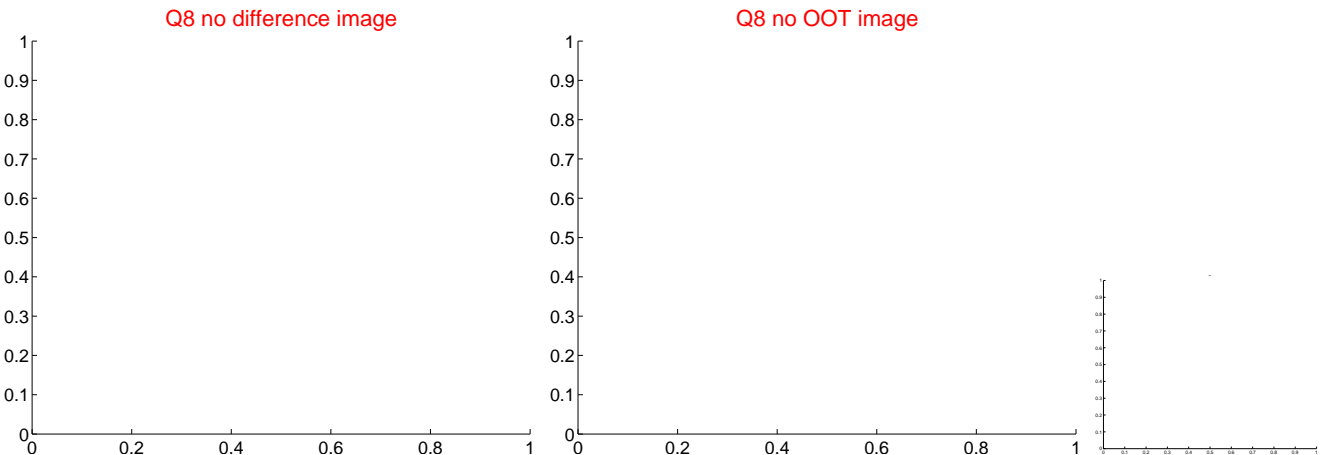
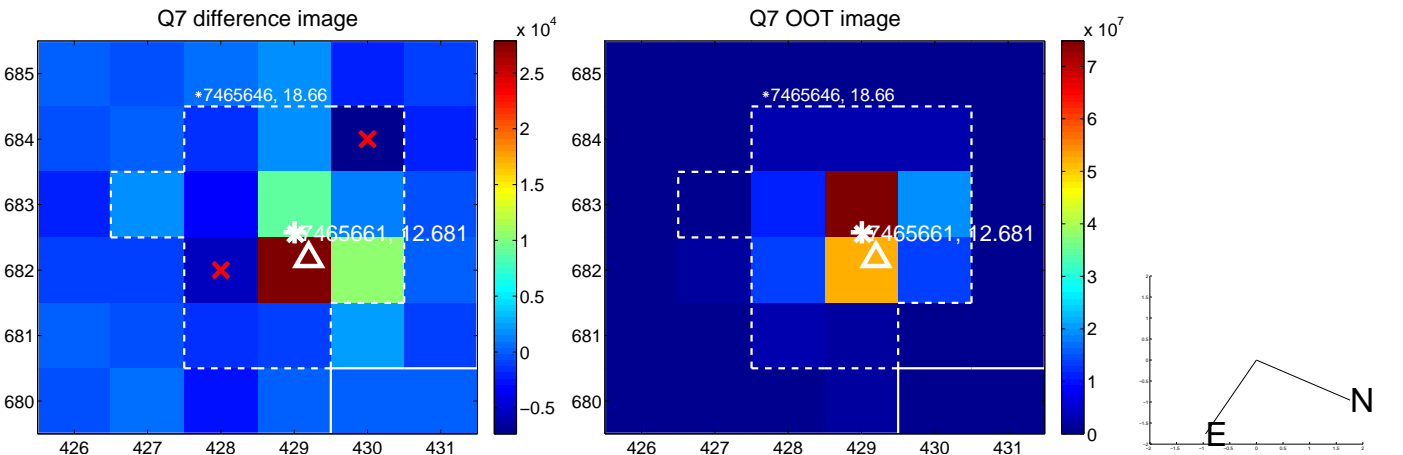
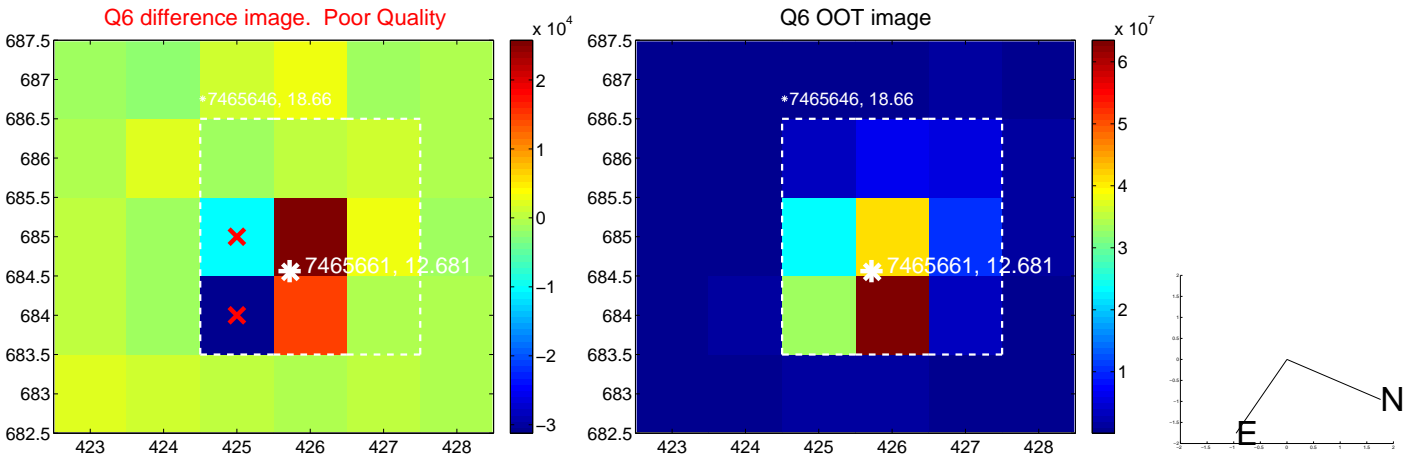
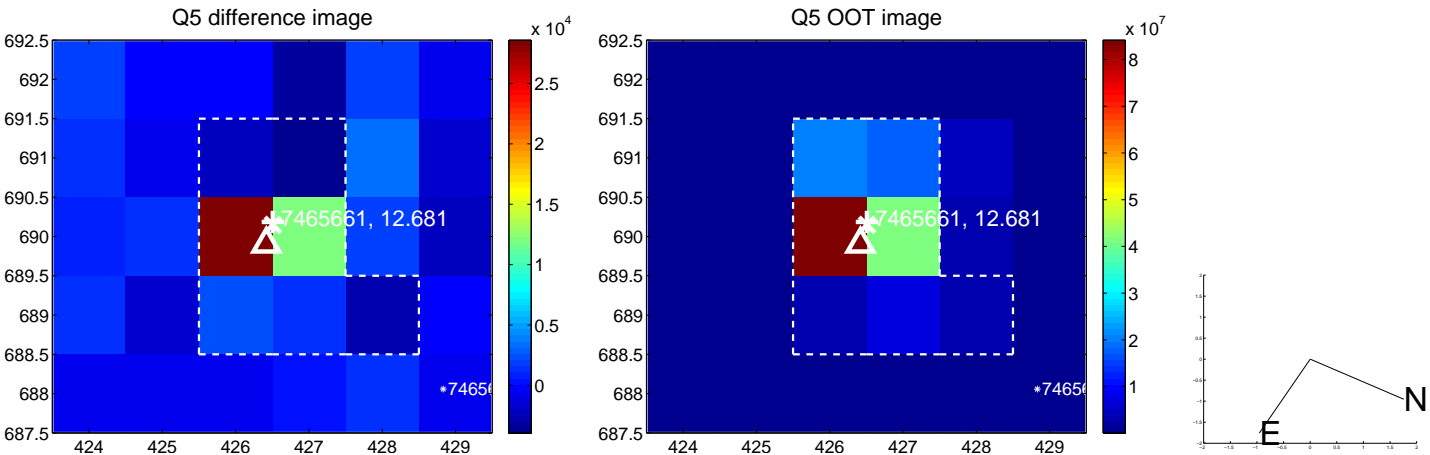


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

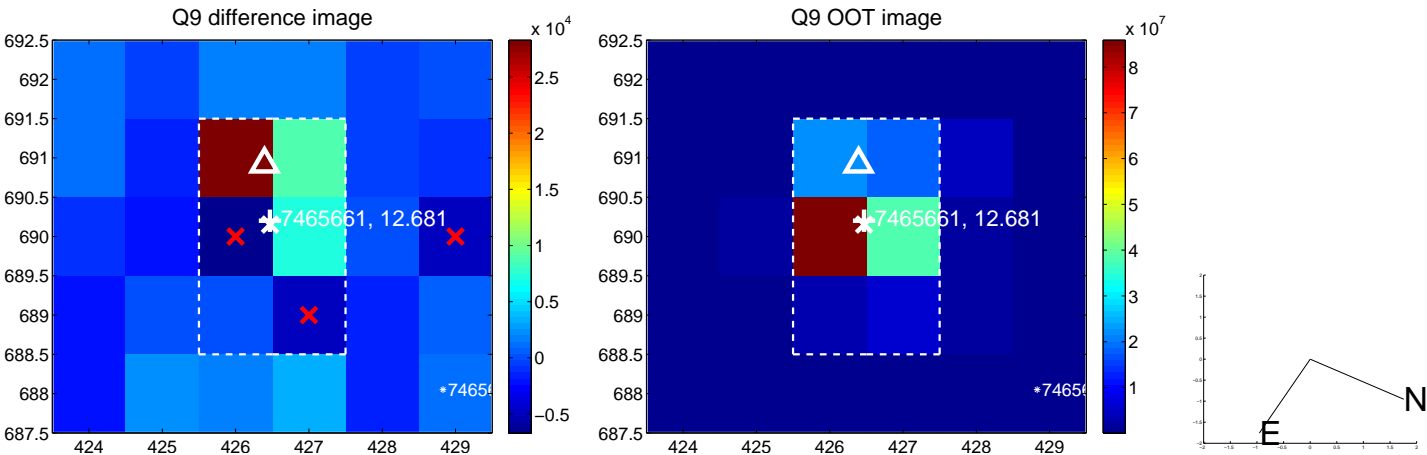
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



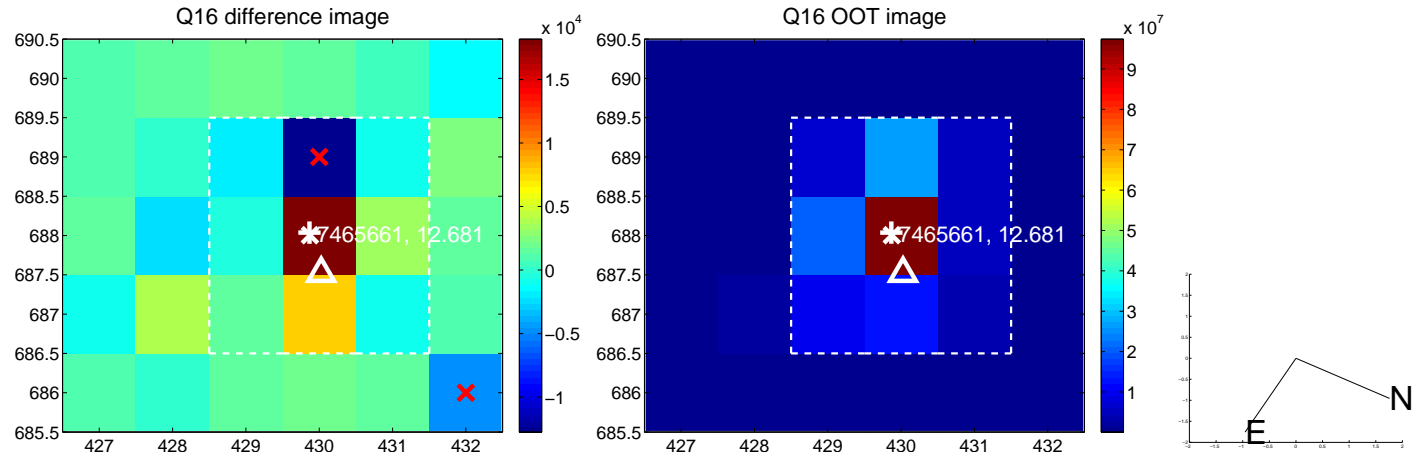
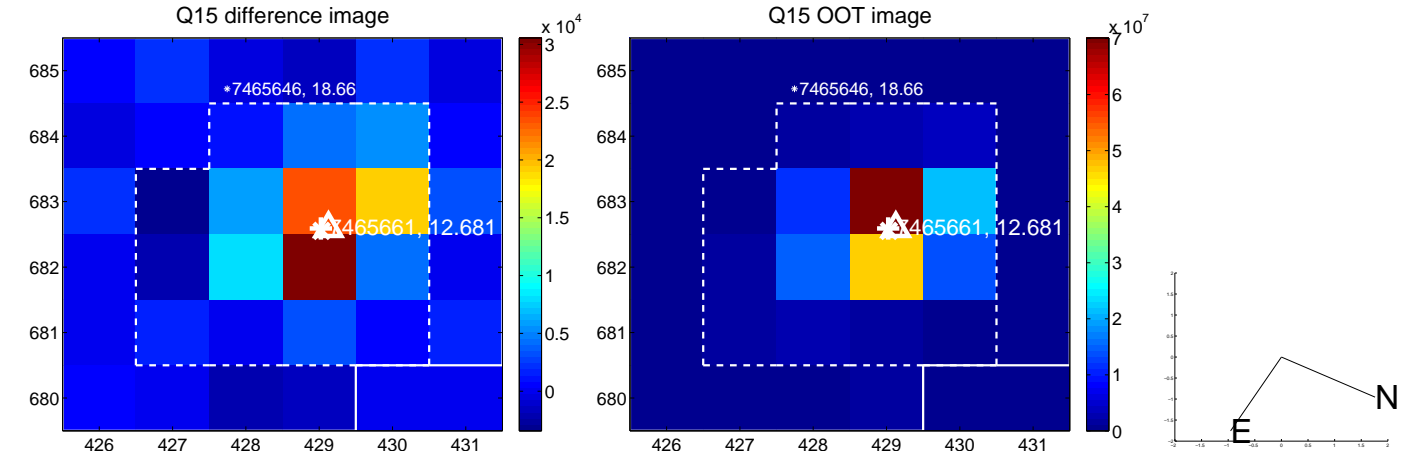
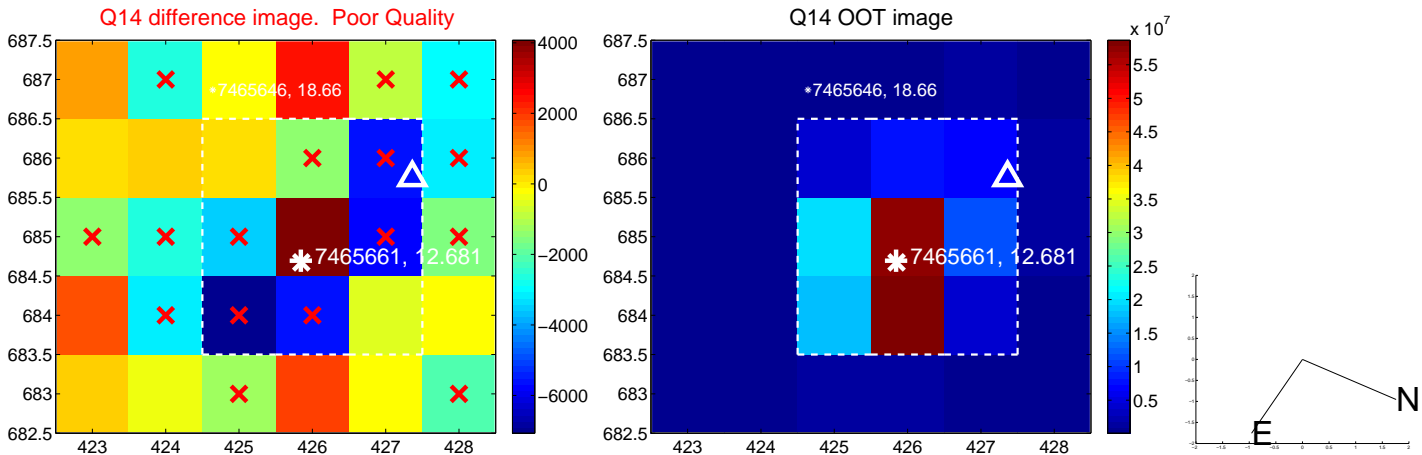
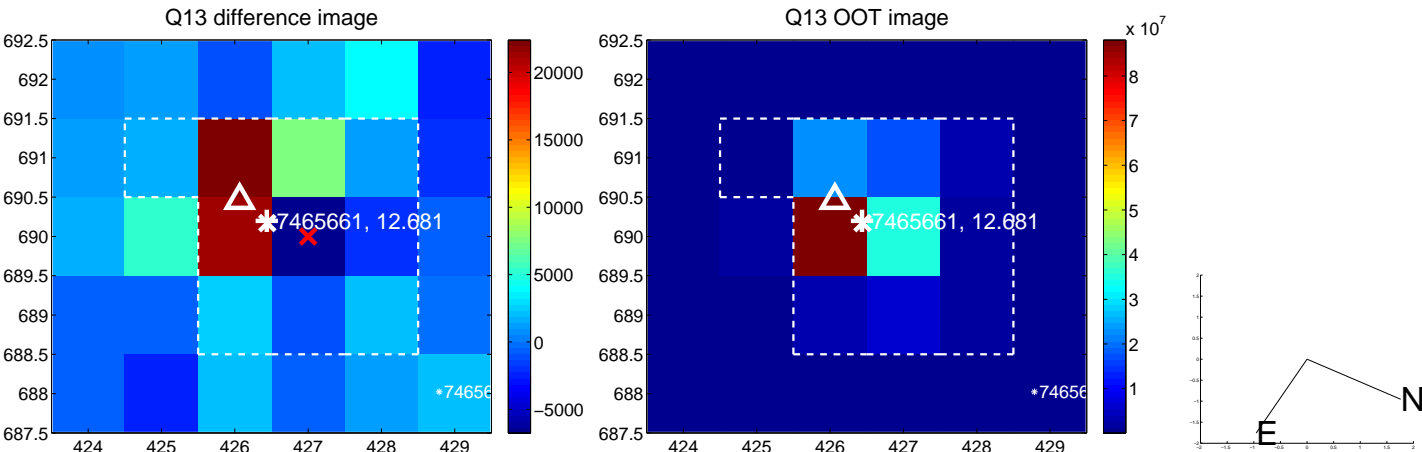
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



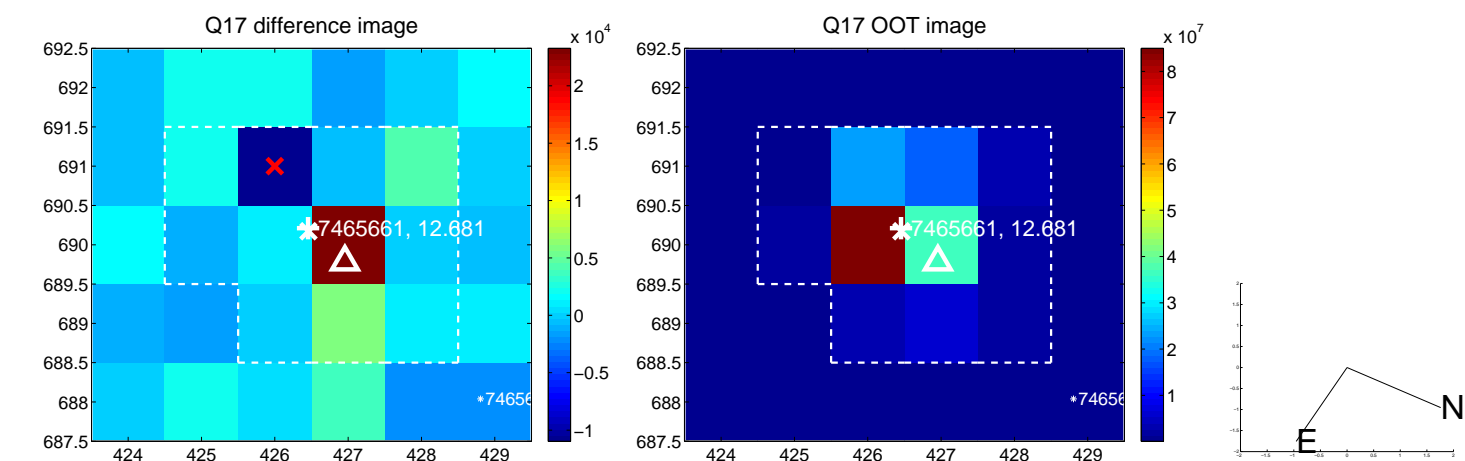
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



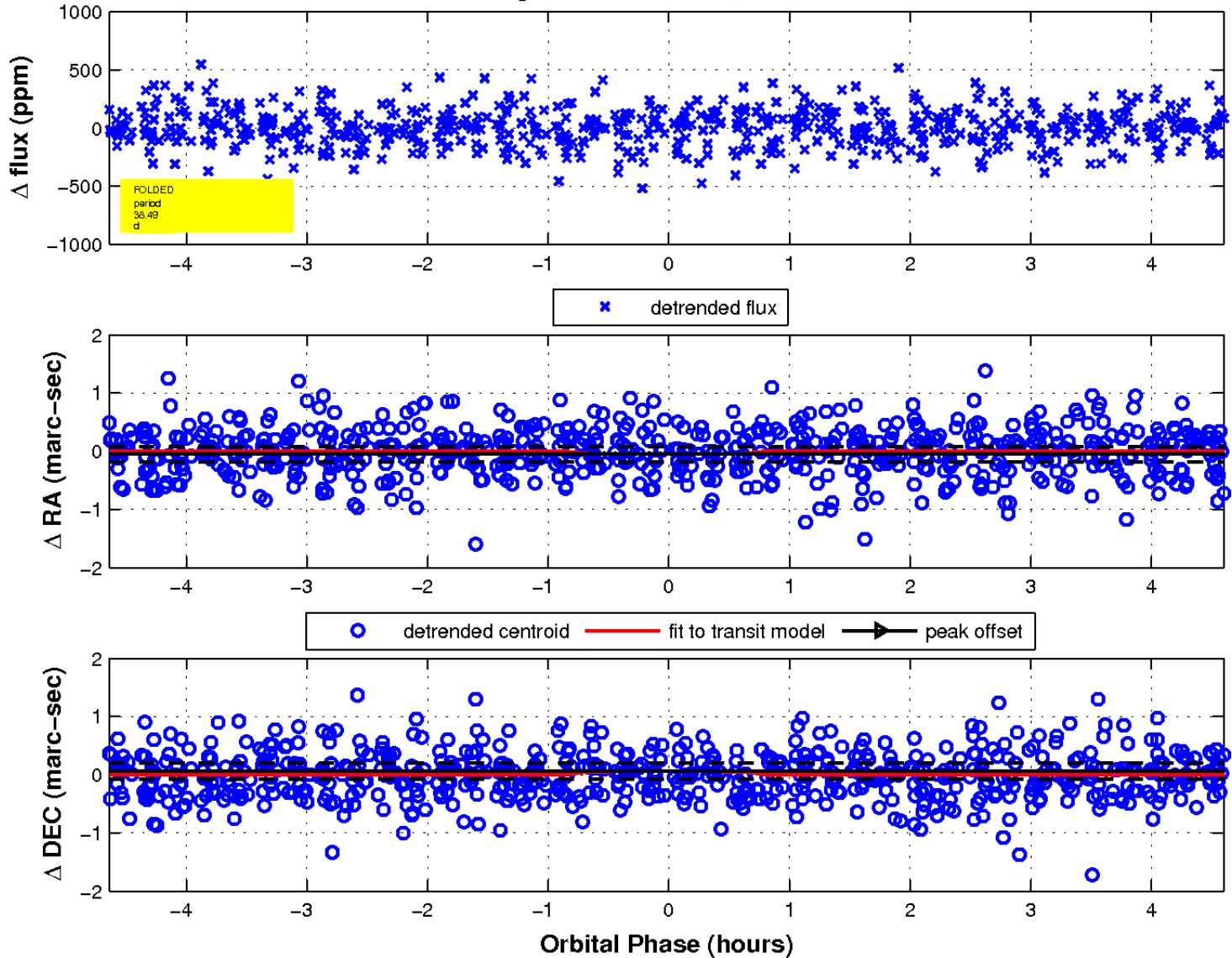
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

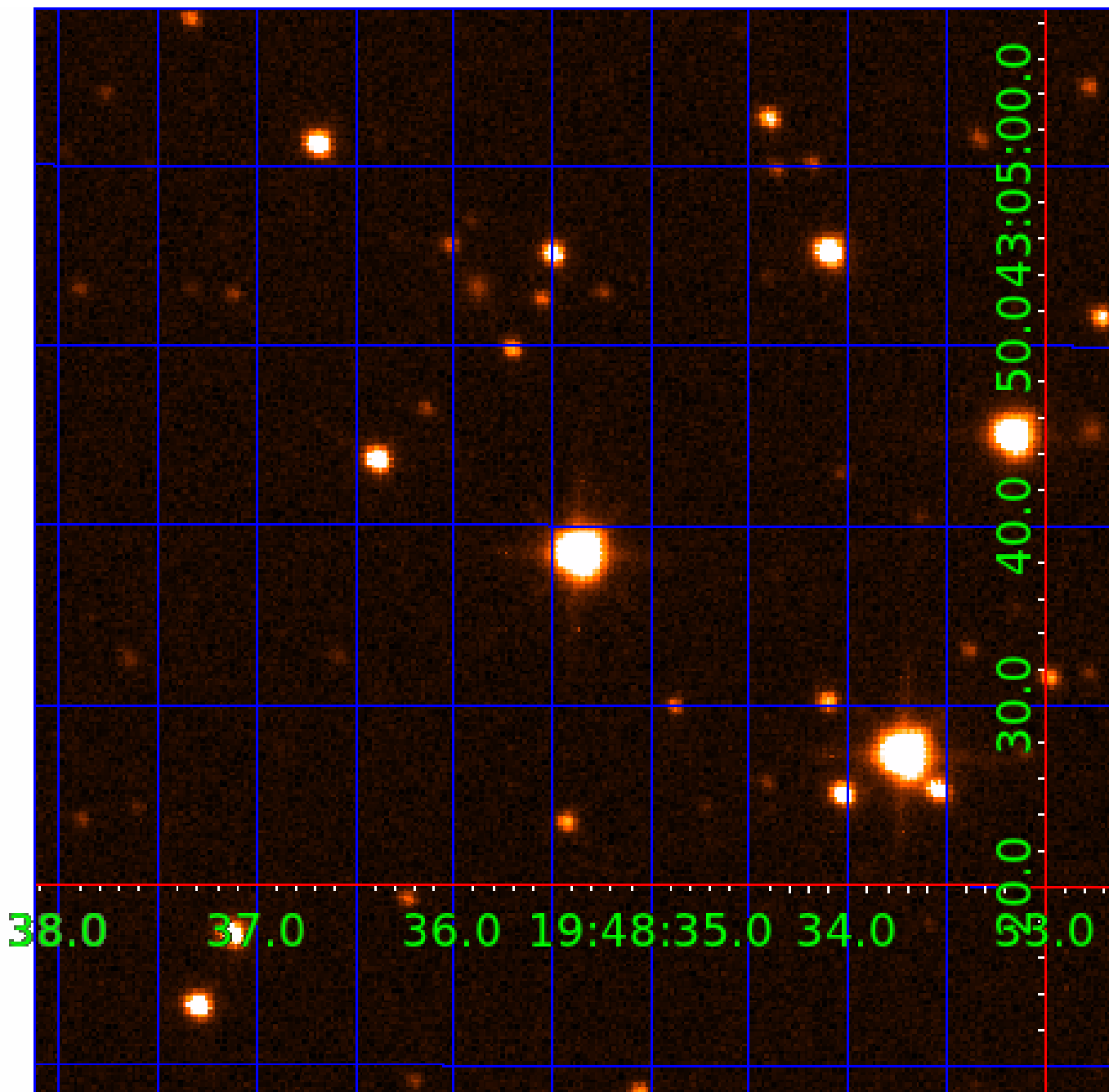


fluxWeightedCentroids, Planet 2 of 5



UKIRT Image

Declination



KIC 007465661

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})
007465661-01	OBS	No	1.180223	131.970075	31.0	6.819	15.1	14.0	4.11	6088	2.36	28942.97
007465661-02	OBS	No	38.487883	148.545501	264.3	1.548	9.0	8.4	4.11	6088	6.77	277.80
007465661-03	OBS	No	110.246984	191.696763	253.9	7.244	8.9	9.0	4.11	6088	7.52	68.29
007465661-04	OBS	No	75.004390	181.428297	307.1	1.965	8.3	8.6	4.11	6088	8.19	114.12
007465661-05	OBS	No	33.037657	155.454949	226.5	2.000	8.2	-1.0	4.11	6088	6.18	340.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007465661-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV
007465661-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV
007465661-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007465661-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007465661-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_NOFITS

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

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

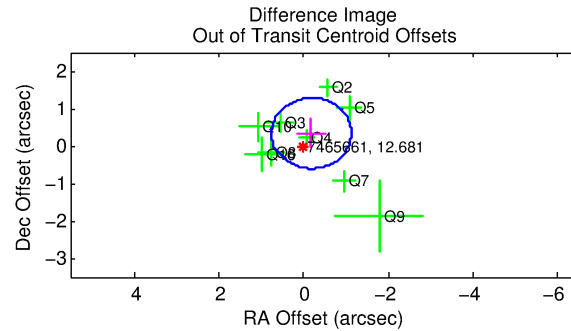
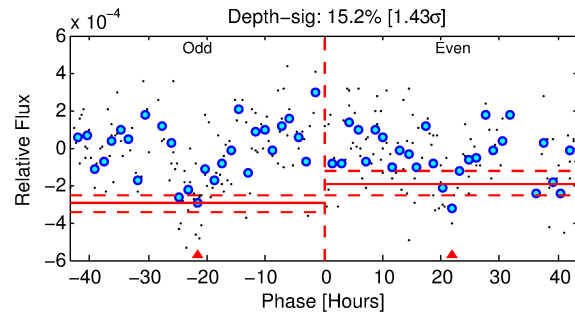
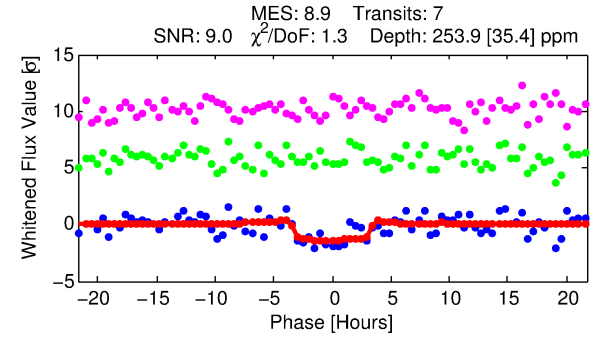
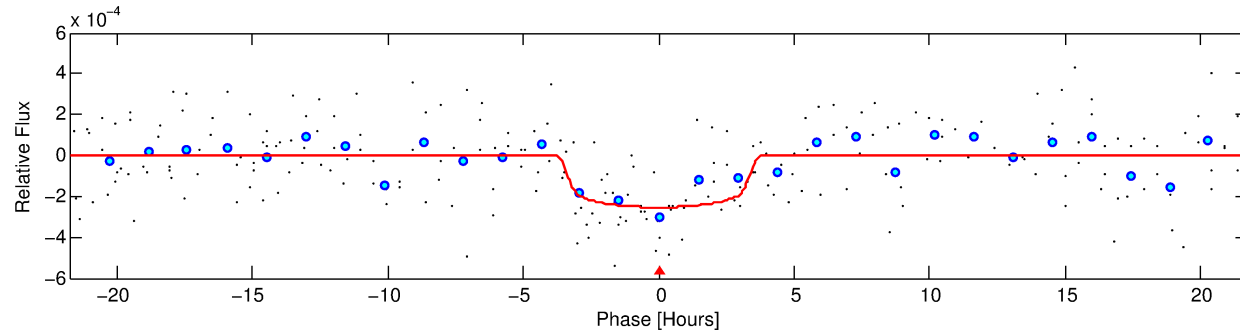
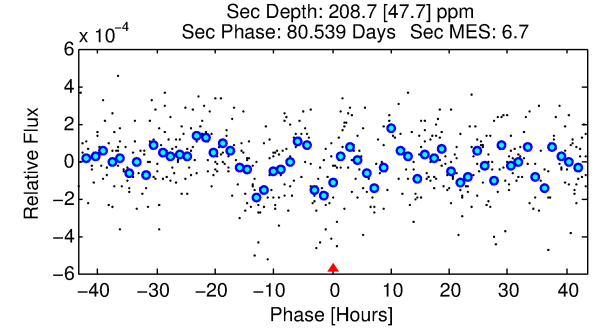
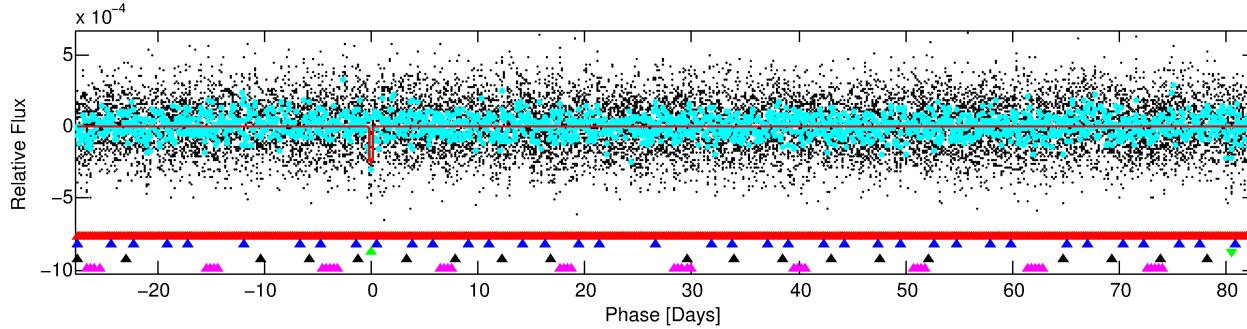
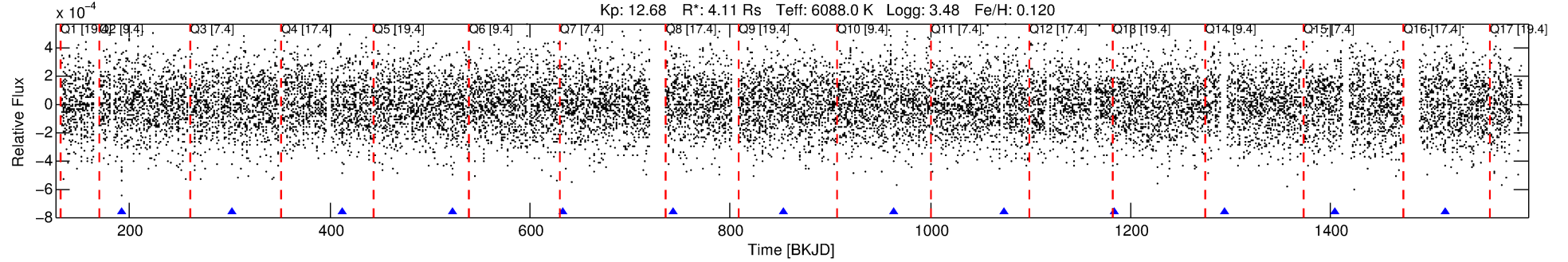
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007465661-03

No Significant Match Found

DV One-Page Summary

KIC: 7465661 Candidate: 3 of 5 Period: 110.247 d



DV Fit Results:

Period = 110.24698 [0.00214] d
Epoch = 191.6968 [0.0155] BKJD
Rp/R* = 0.0167 [0.0058]
a/R* = 62.04 [105.82]
b = 0.87 [0.50]
Seff = 68.29 [46.37]
Teff = 733 [124] K
Rp = 7.52 [4.15] Re
a = 0.5520 [0.2287] AU
Ag = 619.55 [614.26] [1.01σ]
Teffp = 5654 [1056] K [4.63σ]

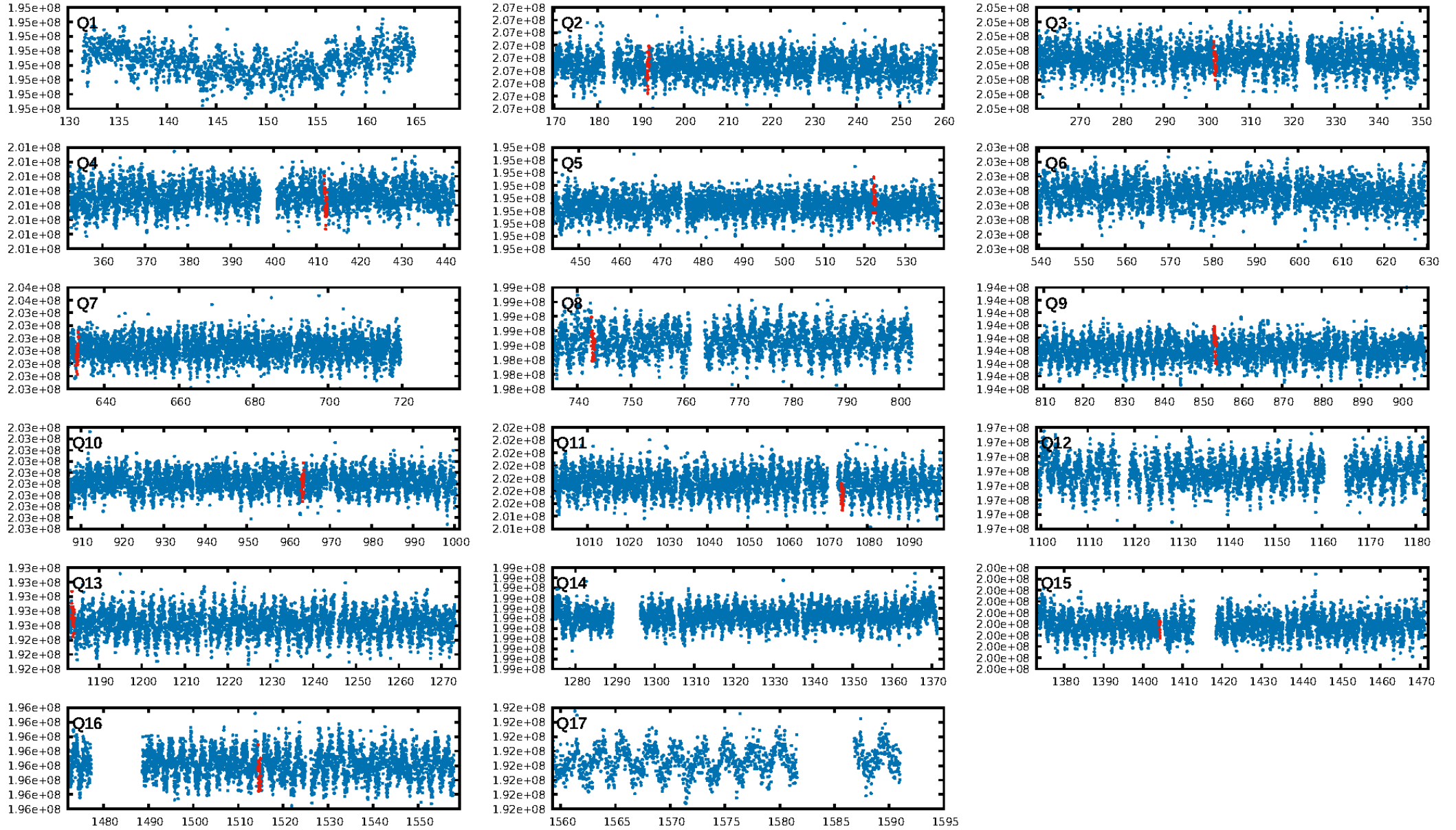
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [112.70σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 30.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [7/7]
GhostDiagnostic-chr: -1.118
Centroid-sig: 11.9%
Centroid-so: 0.575 arcsec [1.29σ]
OotOffset-rm: 0.385 arcsec [1.23σ]
OotOffset-st: 2/2/3/2 [9]
KicOffset-rm: 0.395 arcsec [1.35σ]
KicOffset-st: 2/2/3/2 [9]
DiffImageQuality-fgm: 0.78 [7/9]
DiffImageOverlap-fno: 0.00 [0/9]

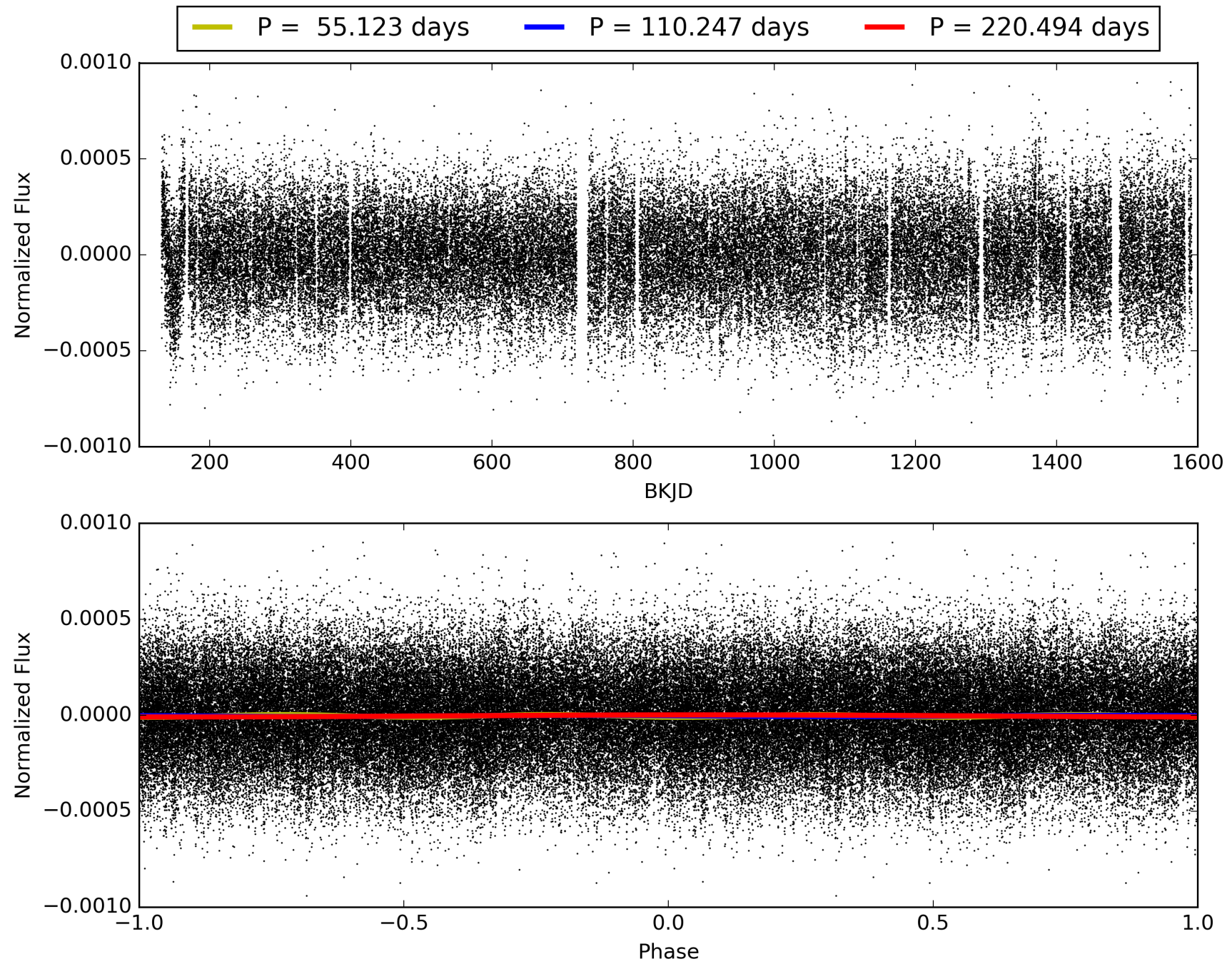
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:09:07 Z

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

TCE 007465661-03, PDC Light Curves

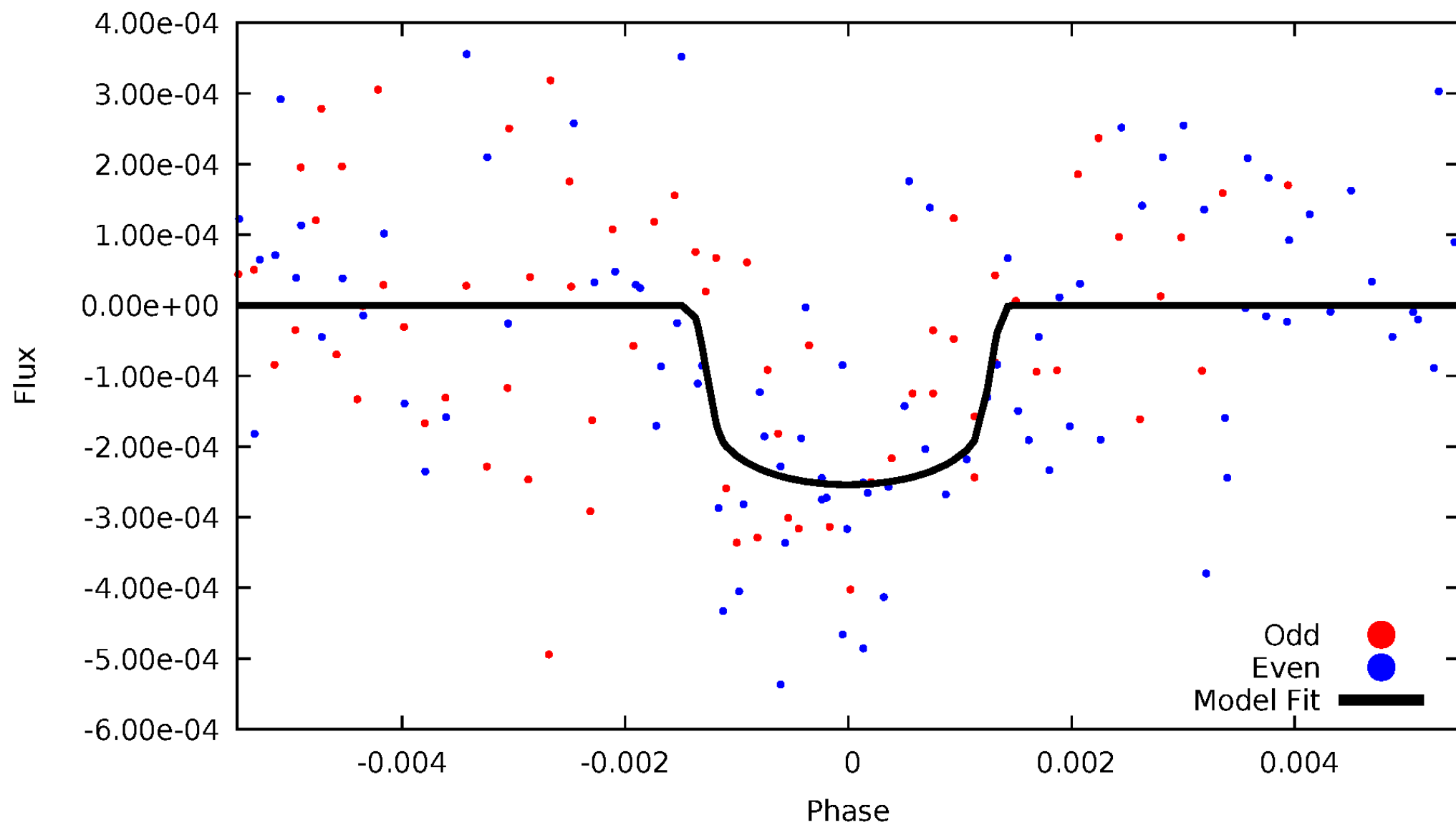


TCE 007465661-03



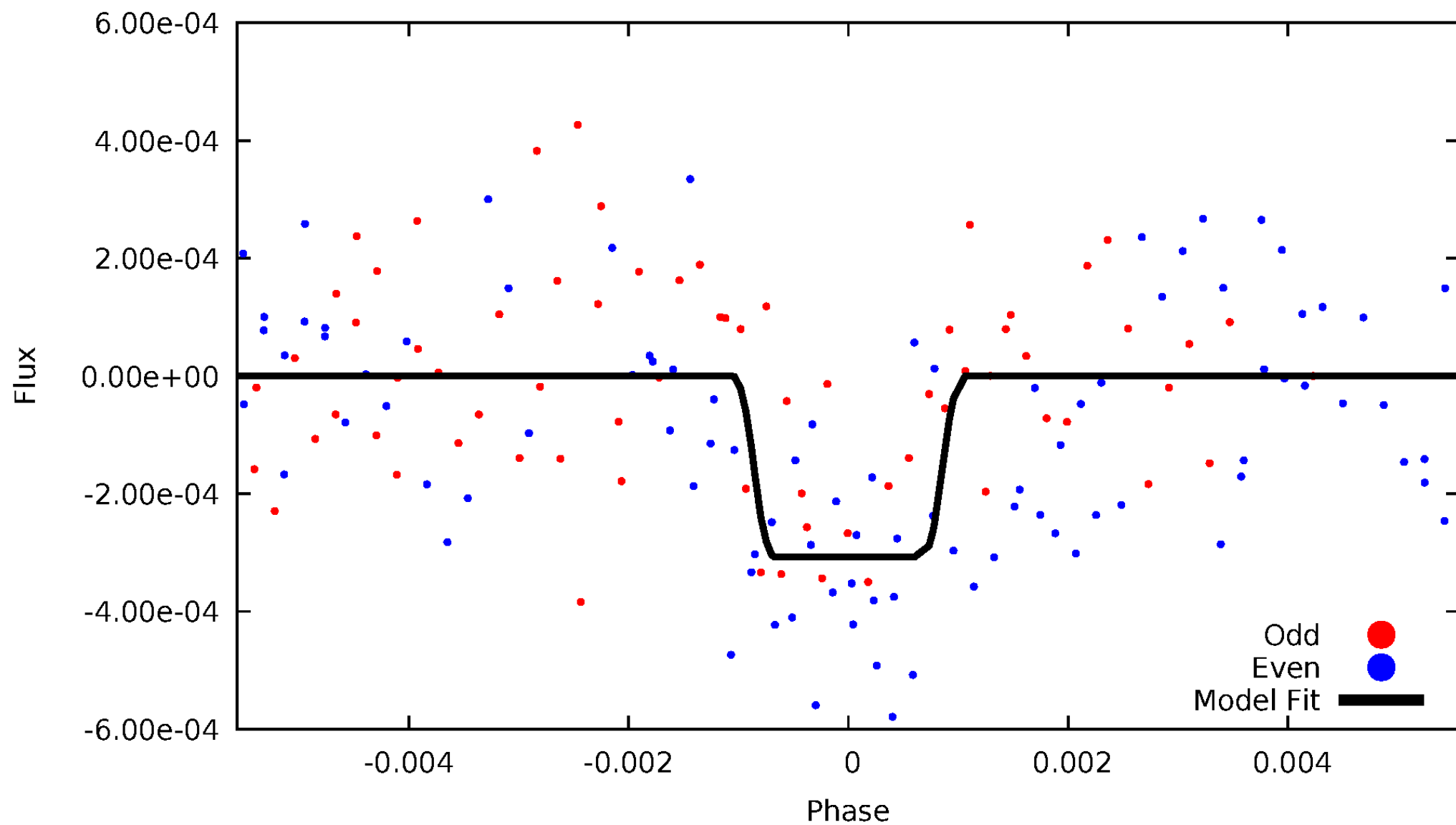
DV Odd/Even

TCE 007465661-03



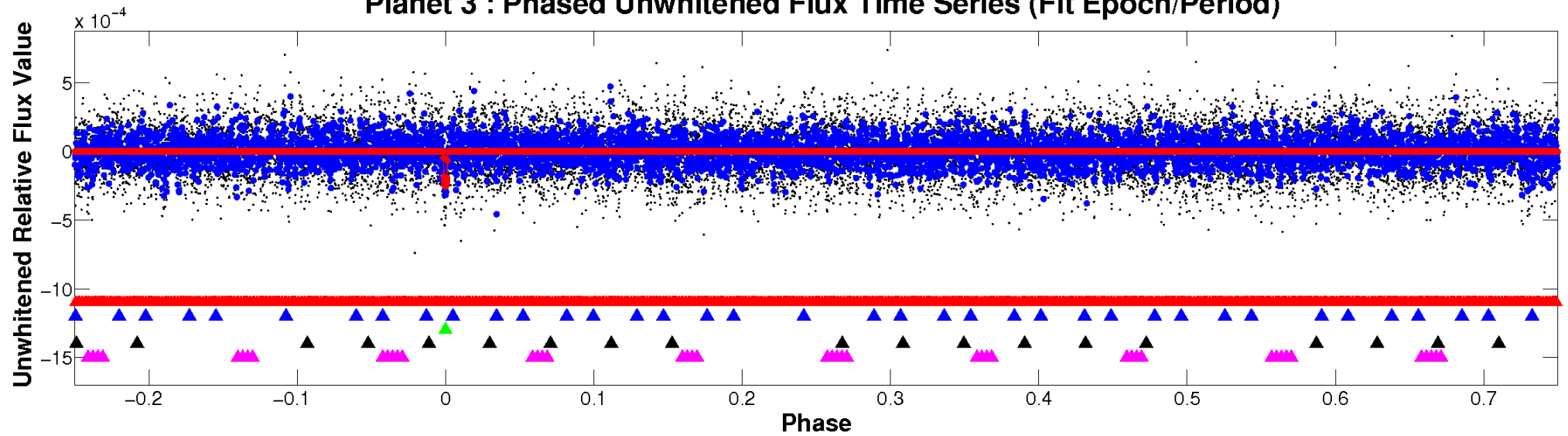
ALT Odd/Even

TCE 007465661-03

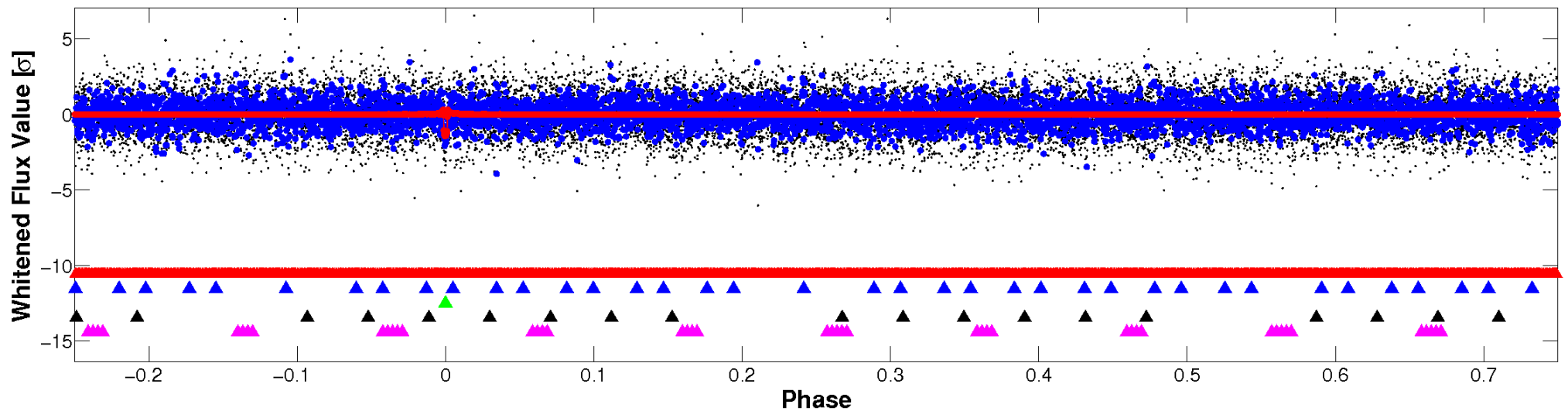


Non-Whitened Vs. Whitened Light Curve

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

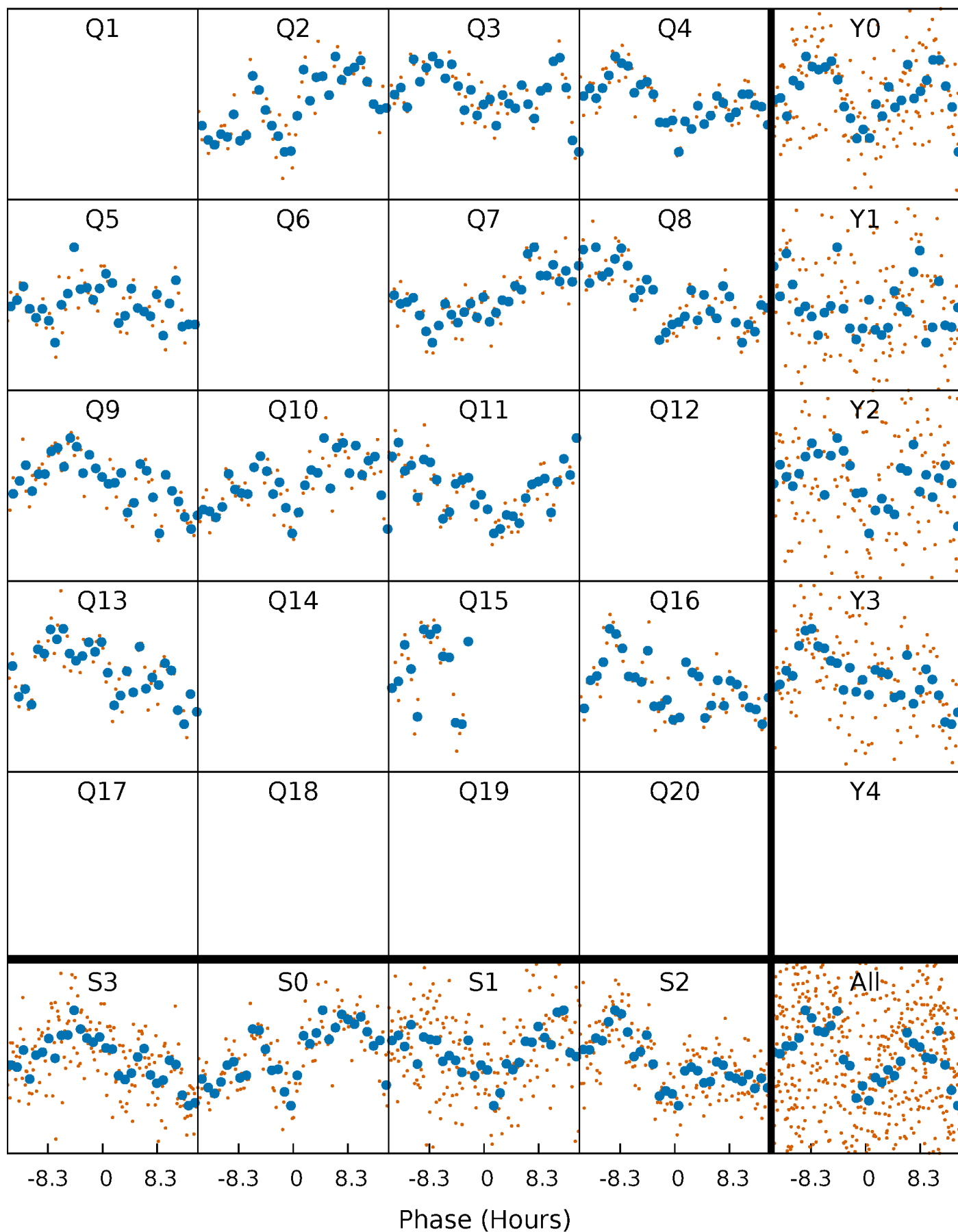


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



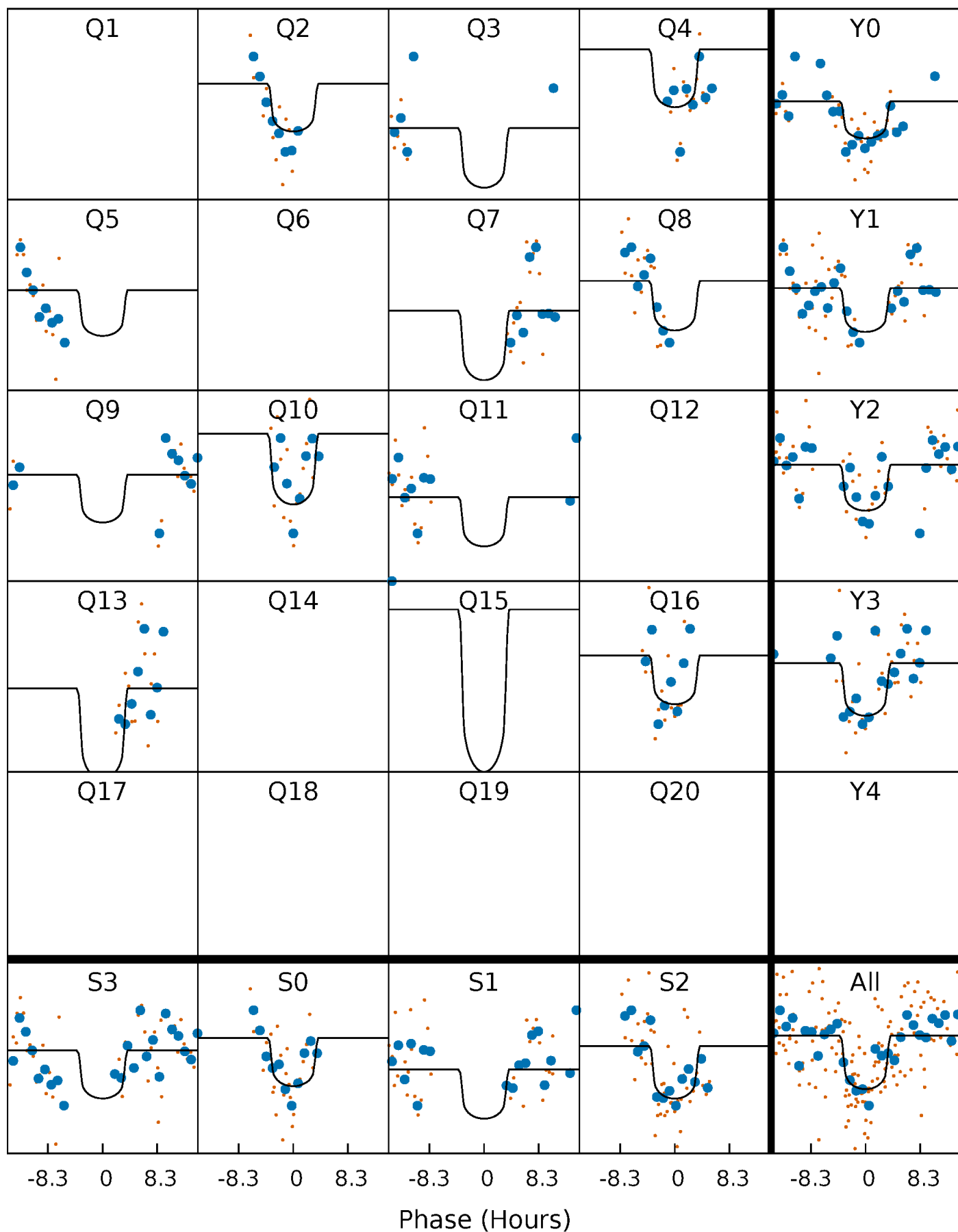
PDC Quarter-Phased Transit Curves

TCE 007465661-03 P=110.246984 Days $T_0=191.696763$ (BKJD)



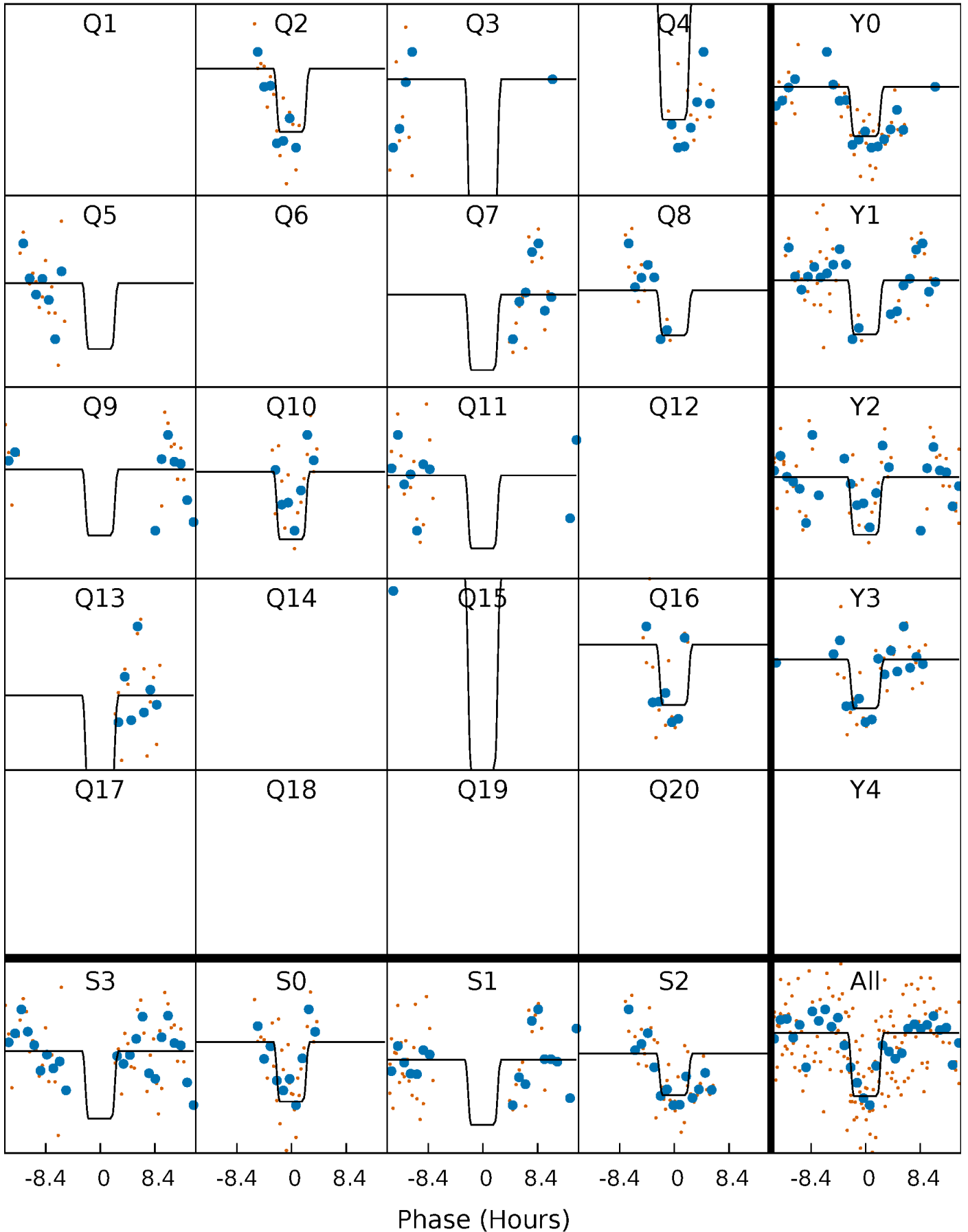
DV Quarter-Phased Transit Curves

TCE 007465661-03 P=110.246984 Days $T_0=191.696763$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

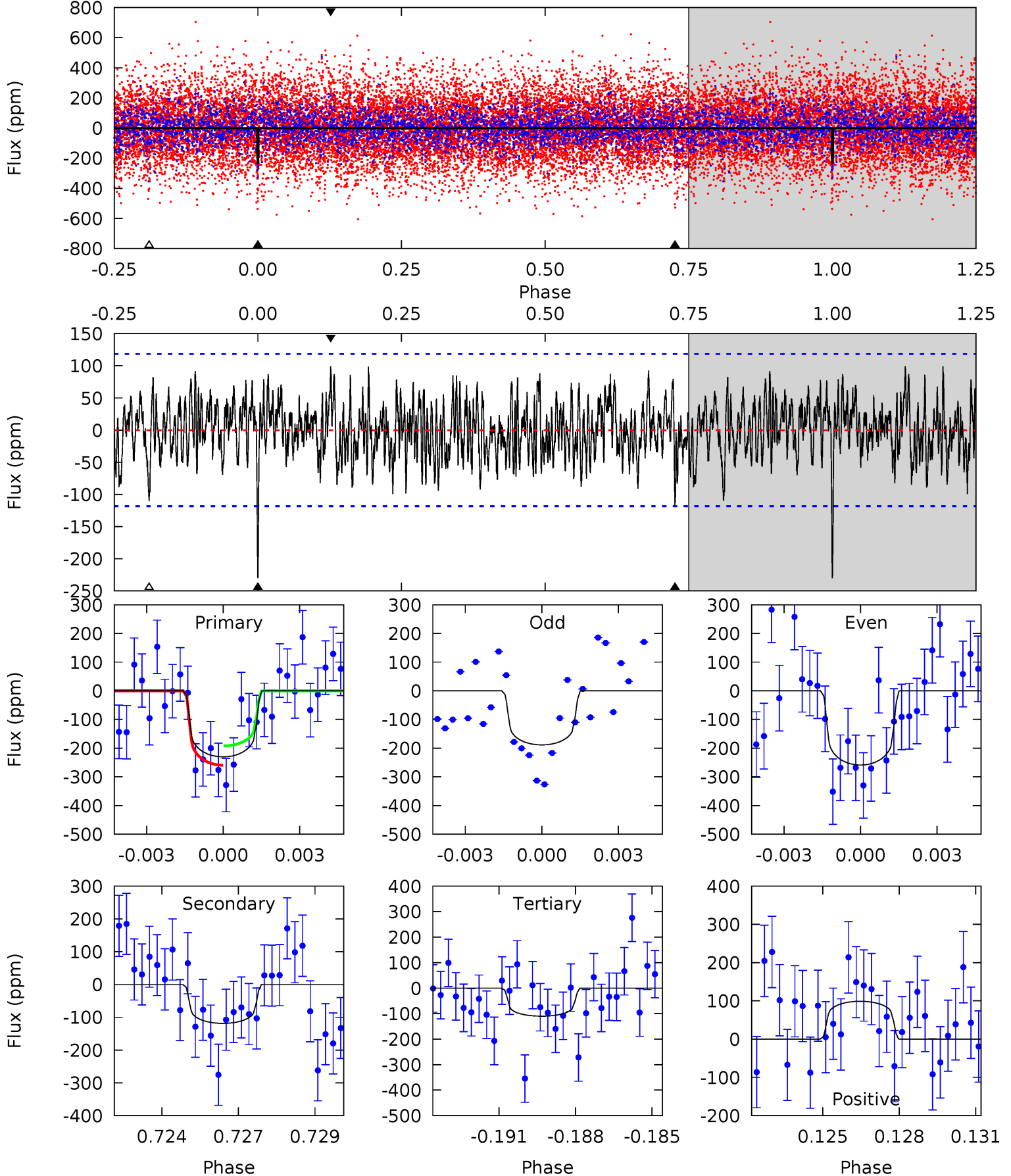
TCE 007465661-03 P=110.249332 Days $T_0=191.662494$ (BKJD)



DV Model-Shift Uniqueness Test

007465661-03, $P = 110.246984$ Days, $E = 81.449779$ Days

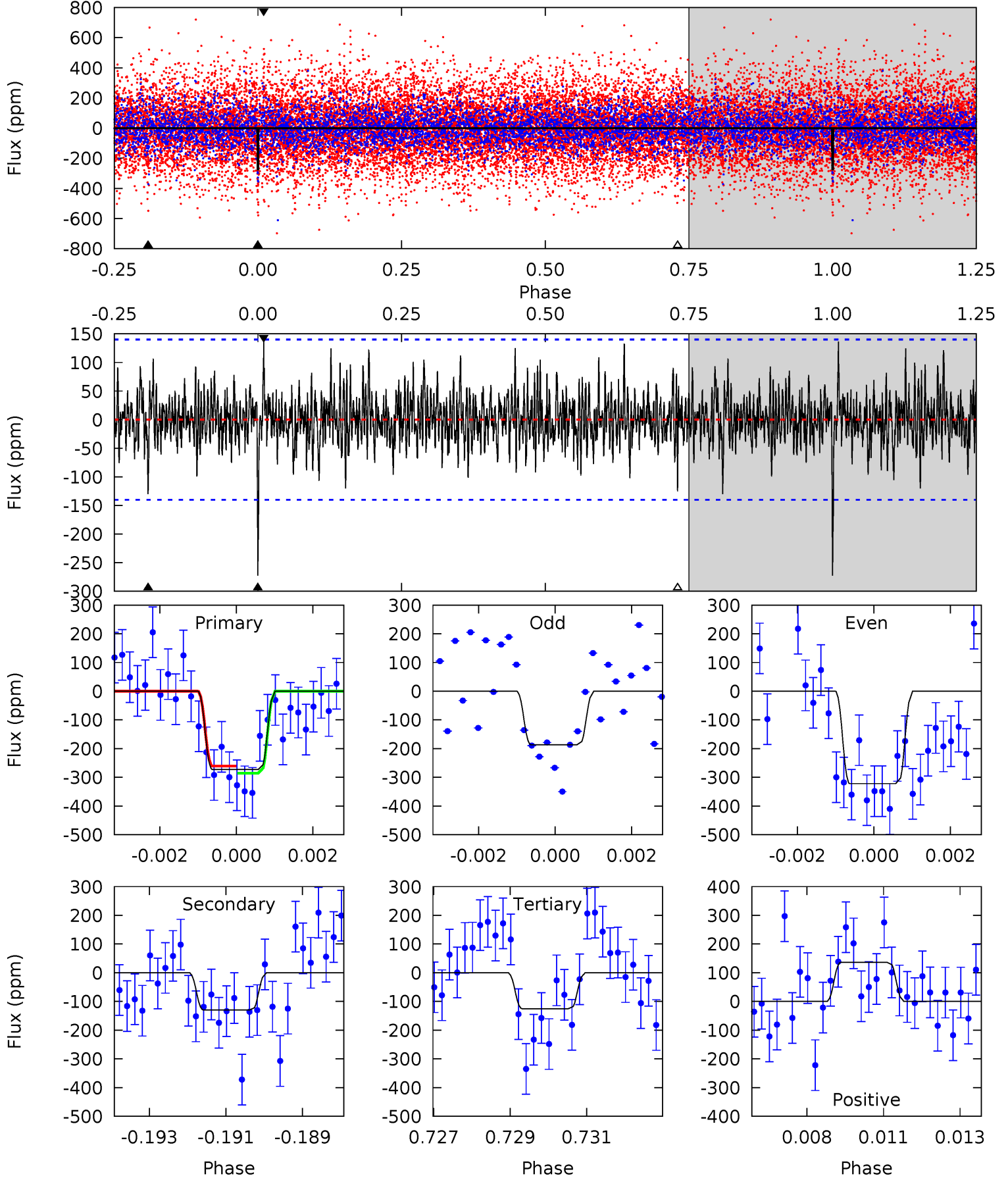
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	5.28	4.90	4.40	5.26	2.98	1.66	5.34	5.84	0.38	0.88	1.55	1.01	0.30	1.49



Alt Model-Shift Uniqueness Test

007465661-03, P = 110.249332 Days, E = 81.413162 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.3	4.92	4.75	5.18	5.32	3.08	1.39	5.58	5.16	0.17	-0.25	2.52	0.92	0.33	0.47



Stellar Parameters For KIC 007465661

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6088^{+204}_{-167}	$3.476^{+0.392}_{-0.098}$	$0.120^{+0.250}_{-0.250}$	$4.112^{+0.753}_{-1.756}$	$1.845^{+0.139}_{-0.418}$	$0.037^{+0.111}_{-0.014}$
	+3%/-3%	+11%/-3%	+208%/-208%	+18%/-43%	+8%/-23%	+297%/-37%
Source	PHO1	FLK73	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 007465661-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-119 ± 22	$6.78^{+2.90}_{-2.82}$	996^{+74}_{-115}	4949^{+1272}_{-573}	411^{+776}_{-205}
Alt.	-130 ± 26	$7.19^{+2.77}_{-2.71}$	1004^{+71}_{-113}	5005^{+1015}_{-582}	407^{+673}_{-200}

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 $A_{obs} \gg 1.0$

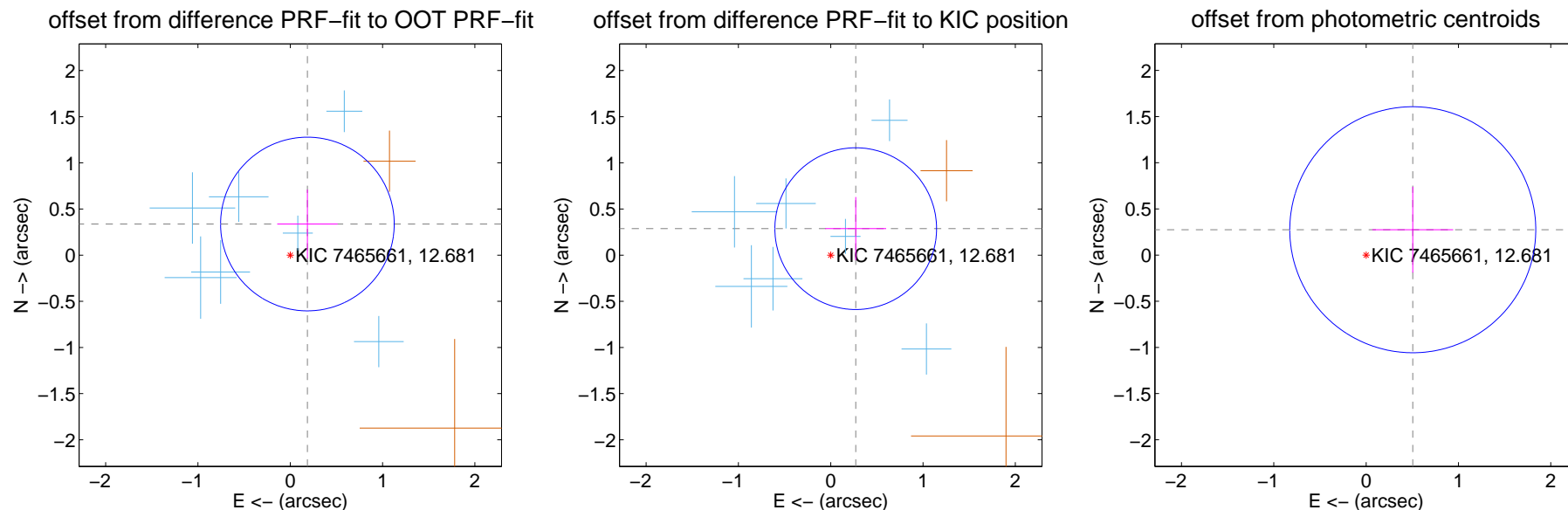
DV Centroid Data

Supplemental centroid analysis for 007465661-03. Kepler magnitude: 12.68. Transit SNR 9.01

There are 7 quarters with good PRF difference image offsets

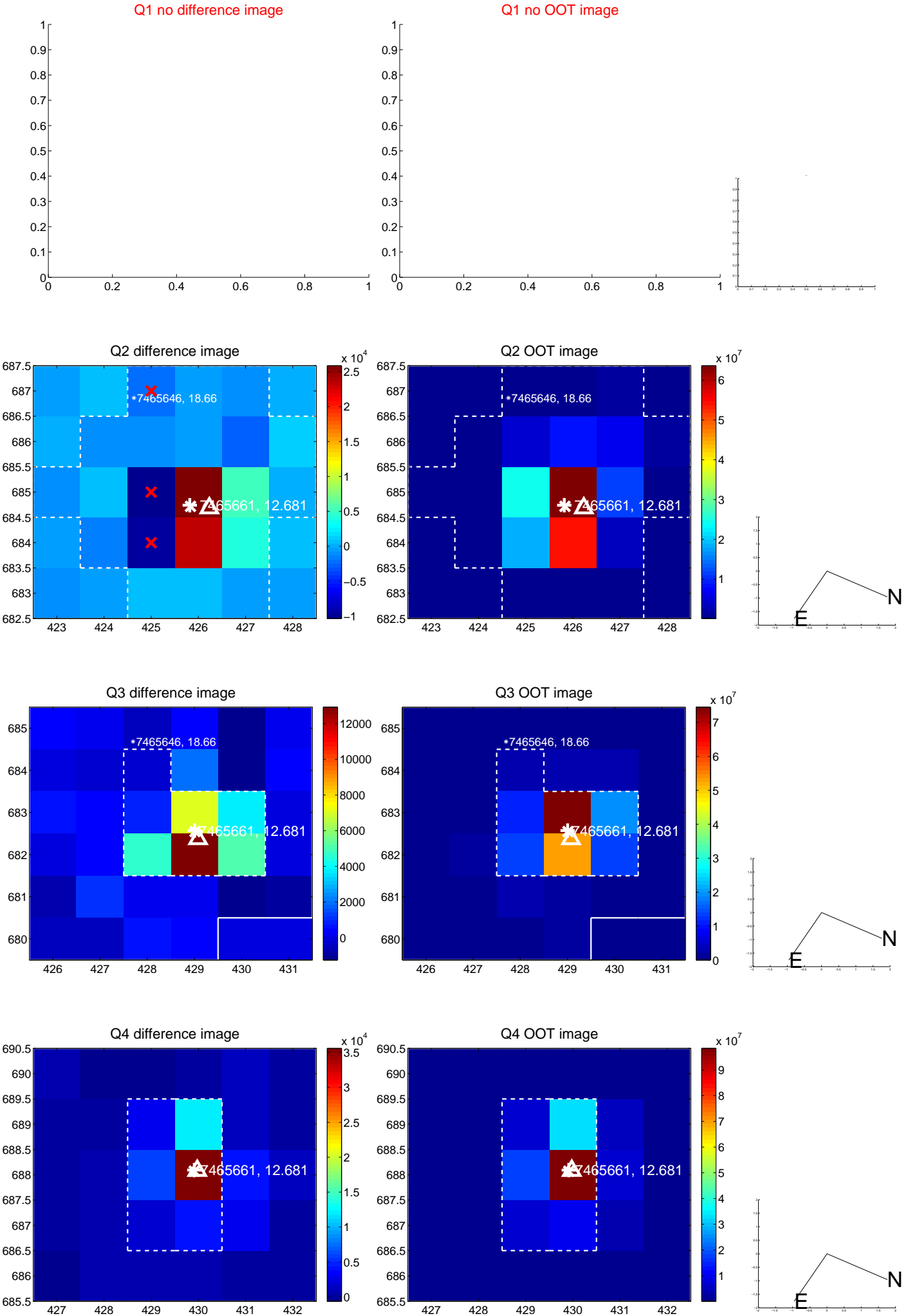
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.385 ± 0.314	1.23	-0.186 ± 0.328	0.337 ± 0.373
PRF-fit source offset from KIC position	0.395 ± 0.292	1.35	-0.271 ± 0.330	0.287 ± 0.342
photometric centroid source offset	0.58 ± 0.44	1.29	-0.51 ± 0.44	0.27 ± 0.47

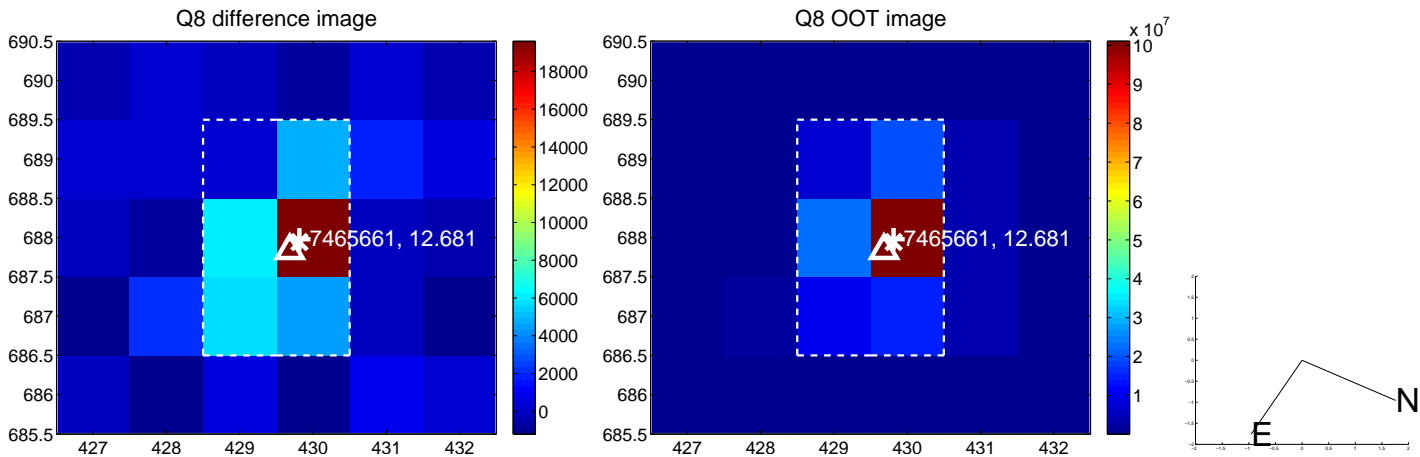
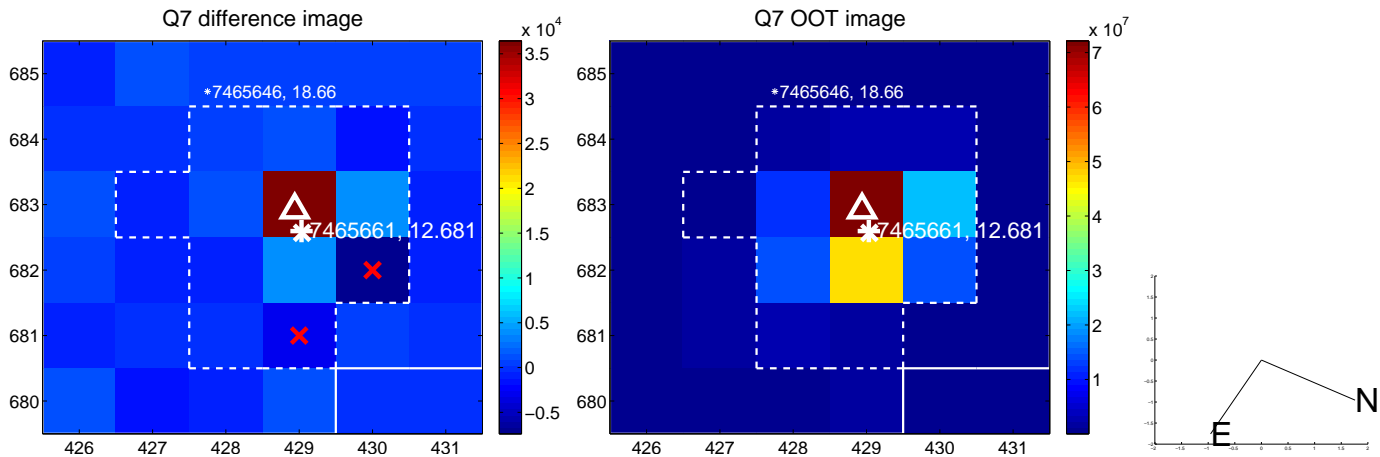
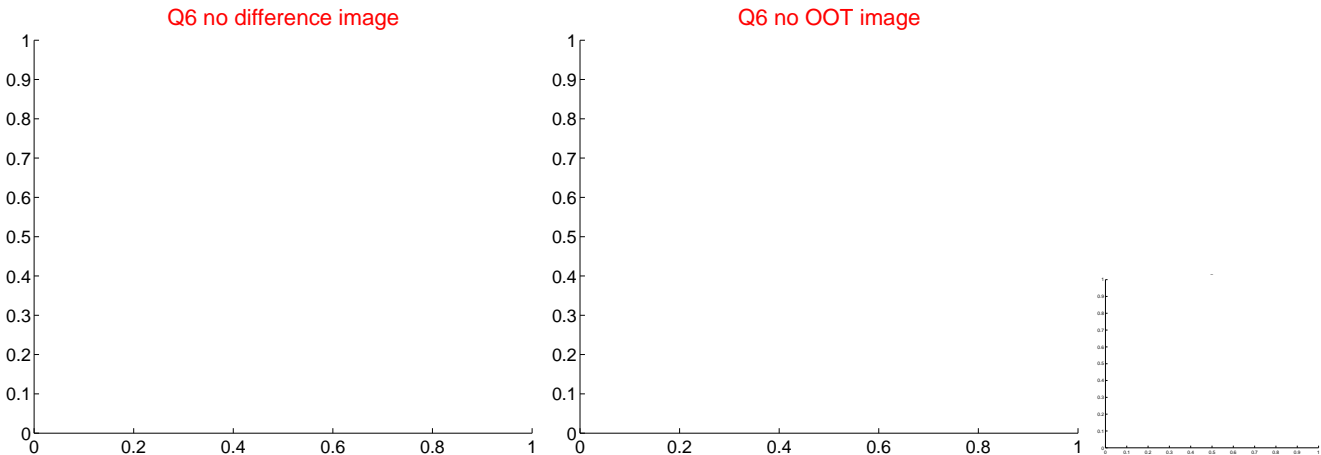
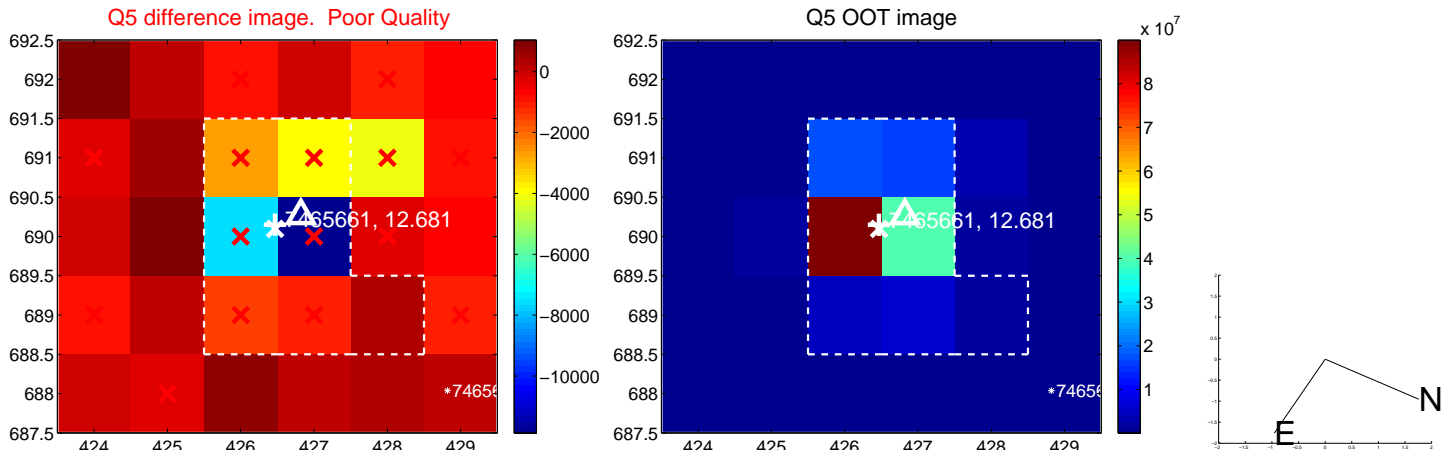


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

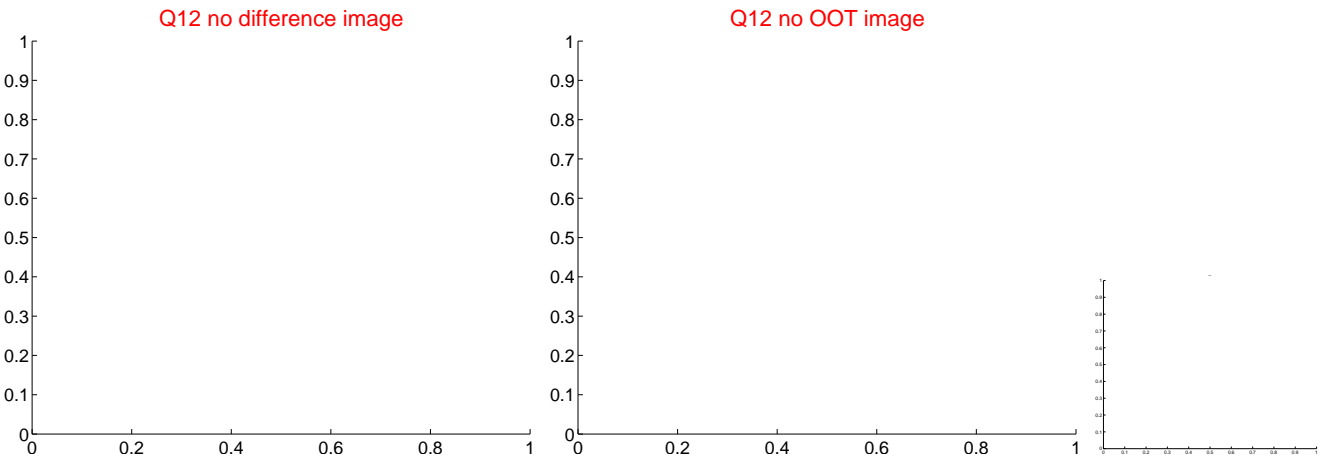
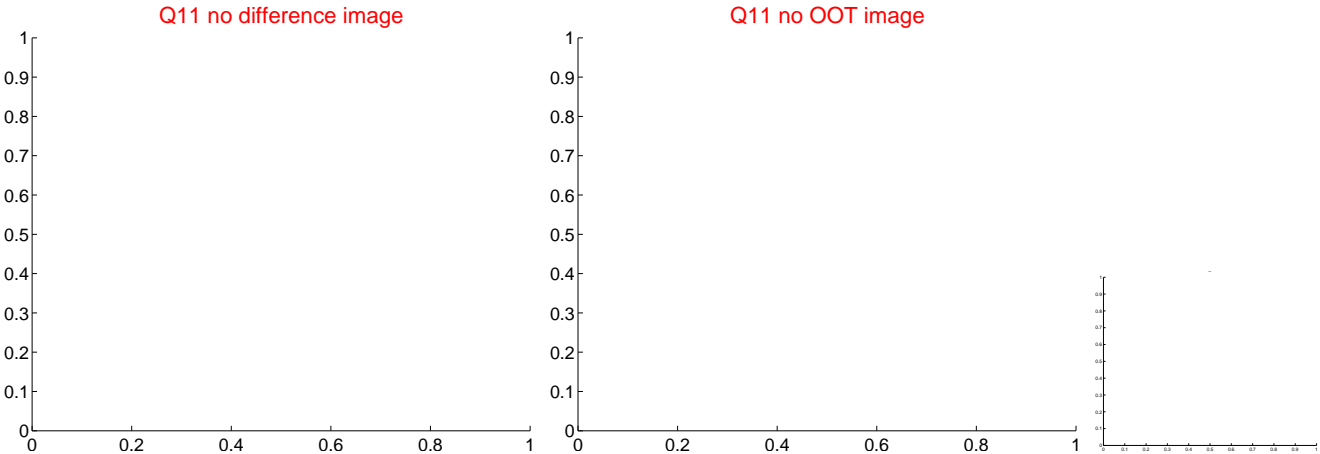
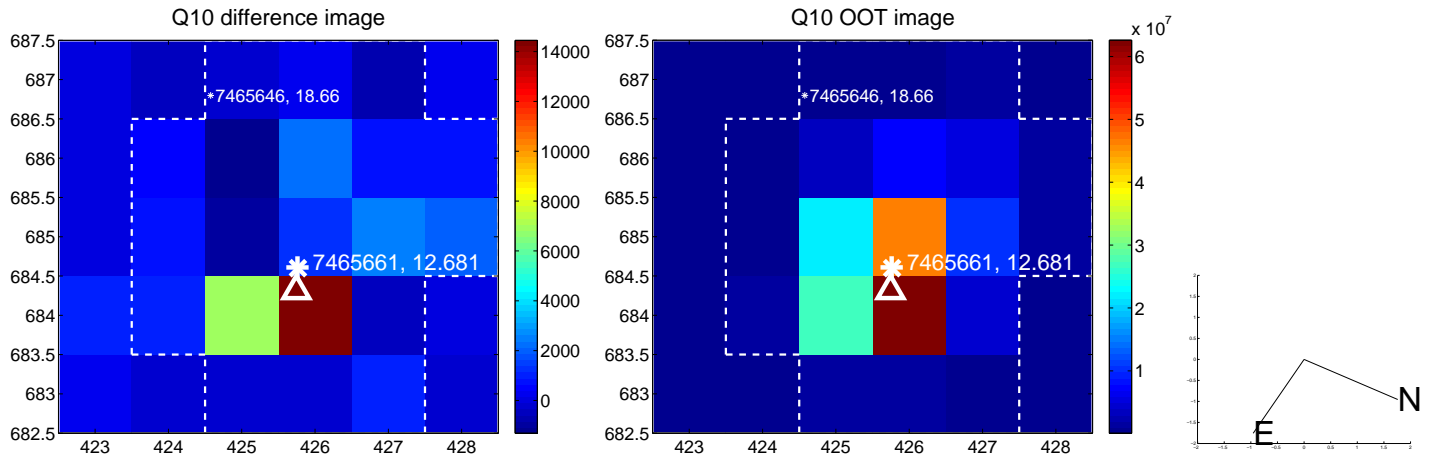
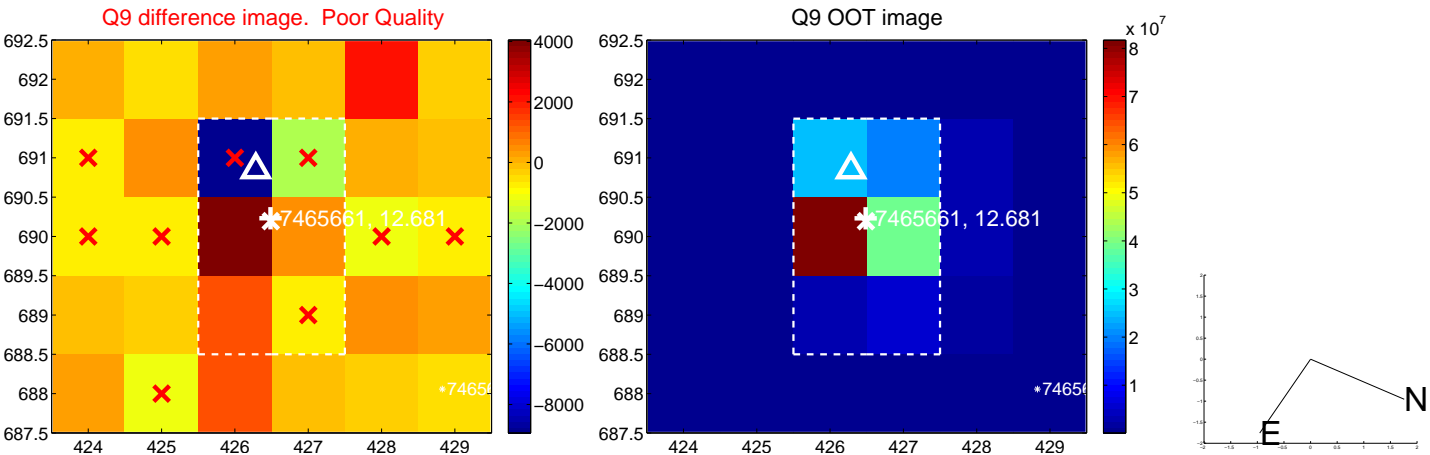
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



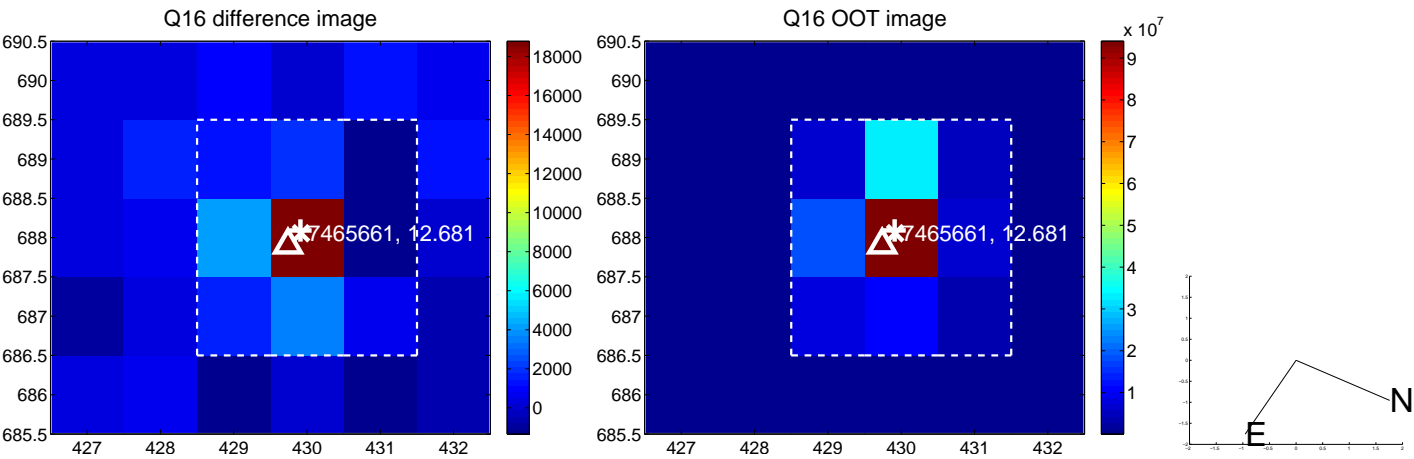
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



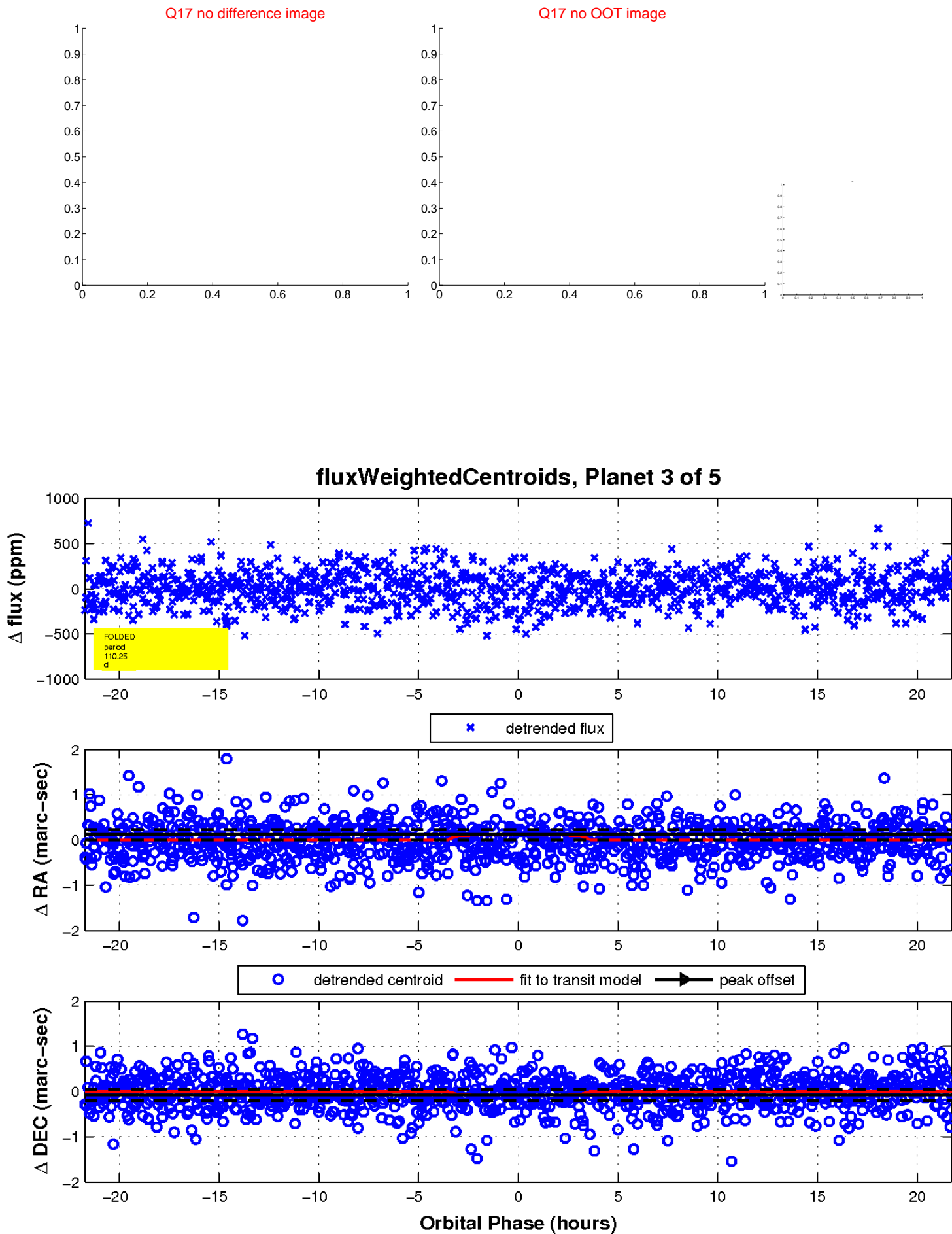
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

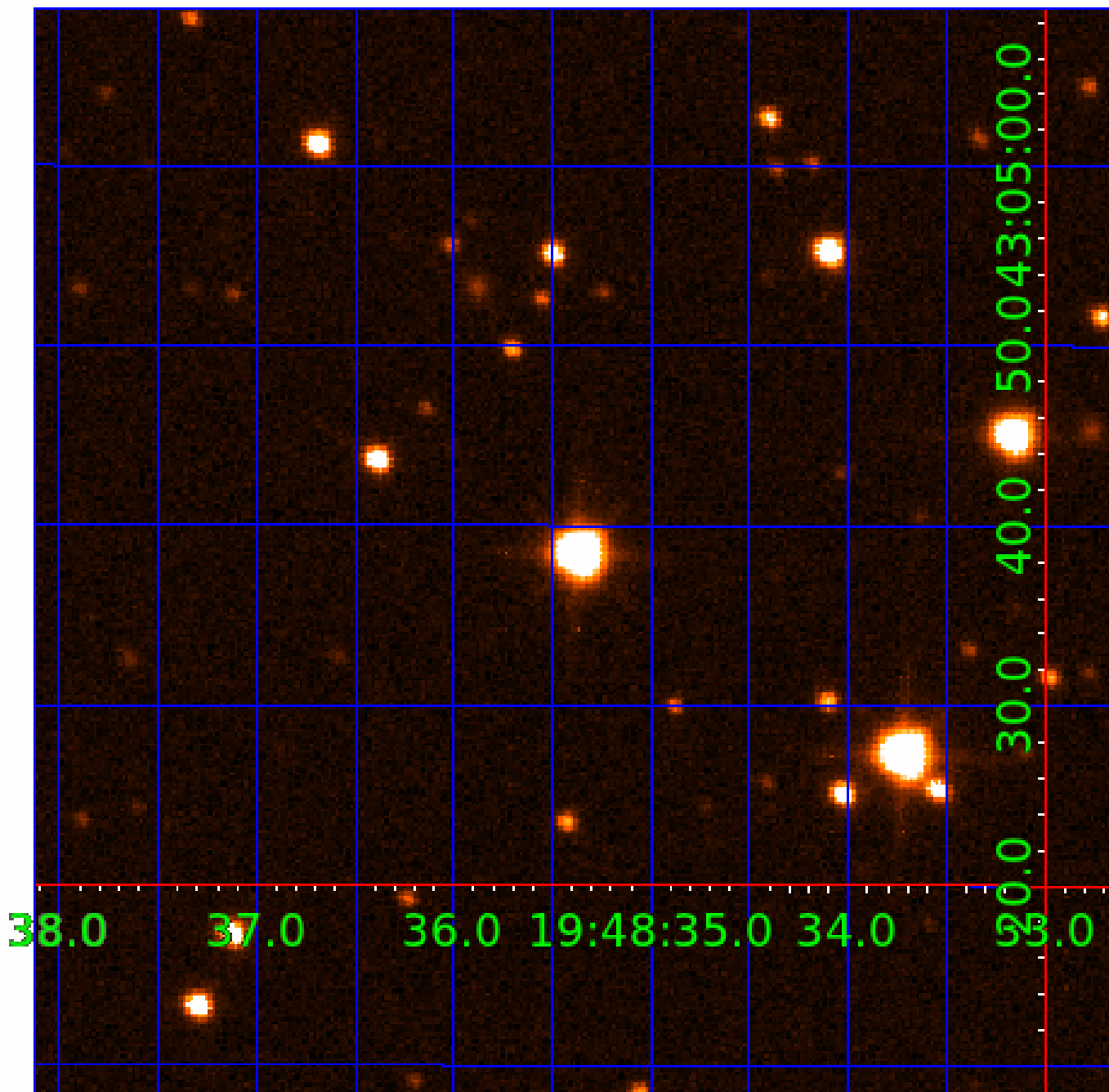


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007465661

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})
007465661-01	OBS	No	1.180223	131.970075	31.0	6.819	15.1	14.0	4.11	6088	2.36	28942.97
007465661-02	OBS	No	38.487883	148.545501	264.3	1.548	9.0	8.4	4.11	6088	6.77	277.80
007465661-03	OBS	No	110.246984	191.696763	253.9	7.244	8.9	9.0	4.11	6088	7.52	68.29
007465661-04	OBS	No	75.004390	181.428297	307.1	1.965	8.3	8.6	4.11	6088	8.19	114.12
007465661-05	OBS	No	33.037657	155.454949	226.5	2.000	8.2	-1.0	4.11	6088	6.18	340.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007465661-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV
007465661-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV
007465661-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007465661-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007465661-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_NOFITS

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

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

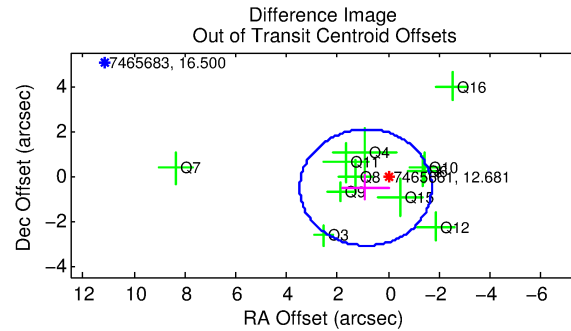
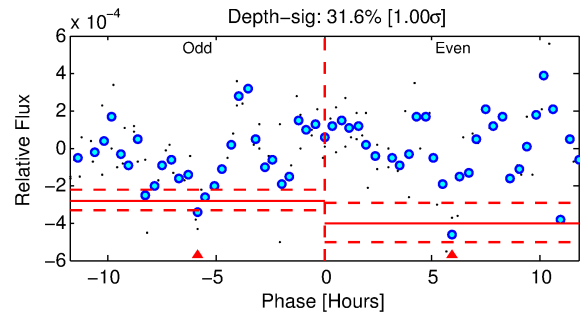
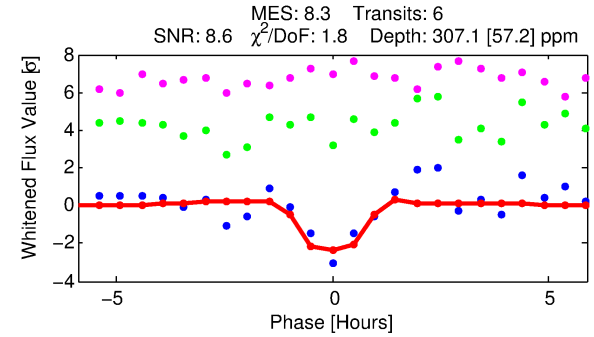
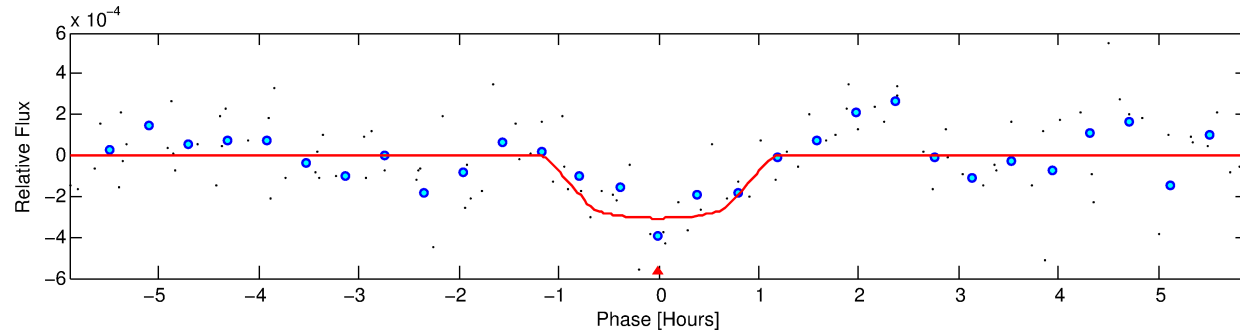
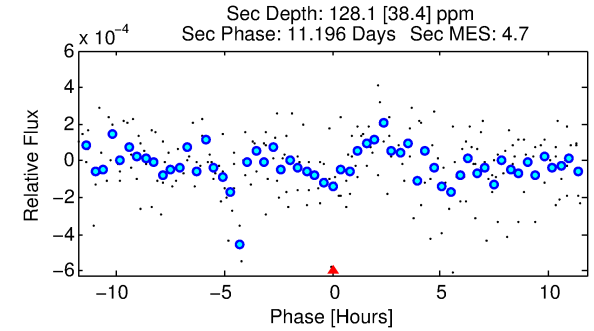
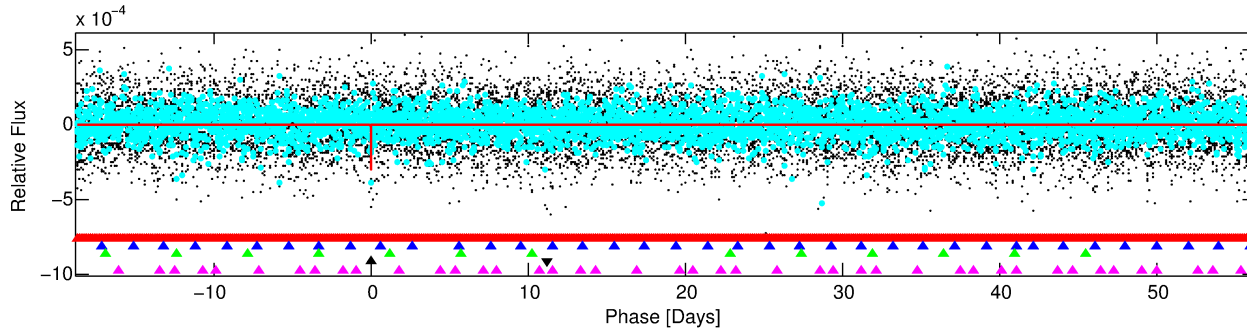
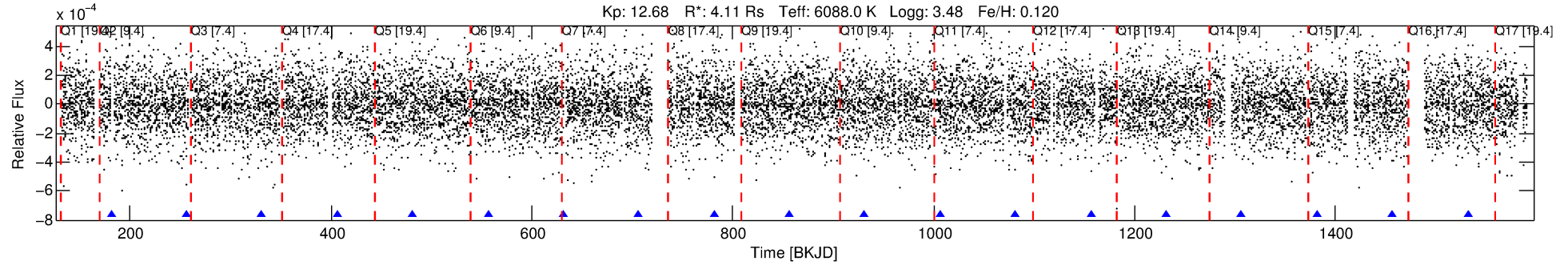
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007465661-04

No Significant Match Found

DV One-Page Summary

KIC: 7465661 Candidate: 4 of 5 Period: 75.004 d



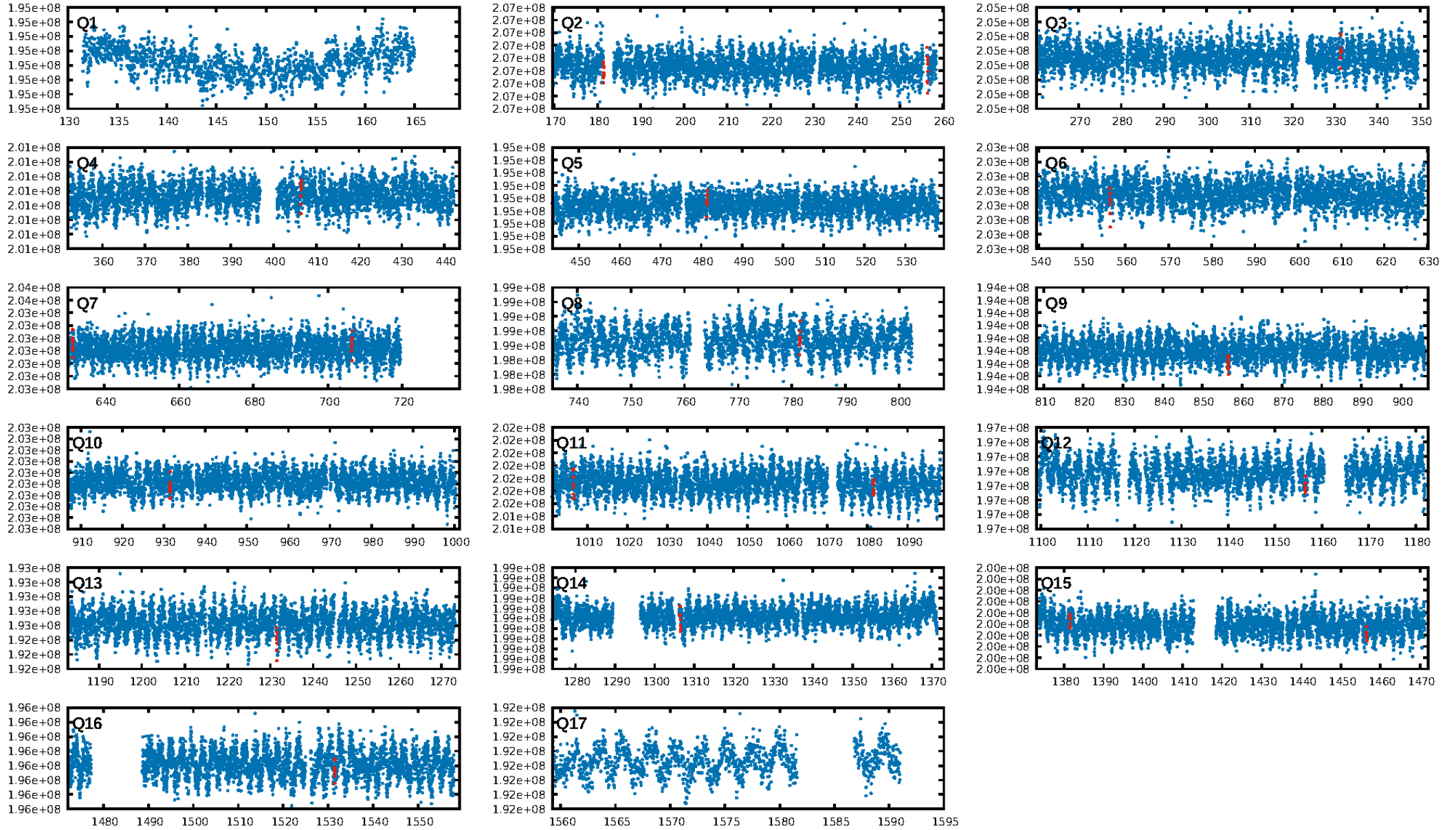
DV Fit Results:

Period = 75.00439 [0.00092] d
Epoch = 181.4283 [0.0081] BKJD
Rp/R* = 0.0183 [0.0305]
a/R* = 164.65 [1389.01]
b = 0.85 [2.84]
Seff = 114.12 [77.50]
Teff = 833 [141] K
Rp = 8.19 [14.13] Re
a = 0.4270 [0.1769] AU
Ag = 191.59 [655.55] [0.29σ]
Teffp = 4794 [4026] K [0.98σ]

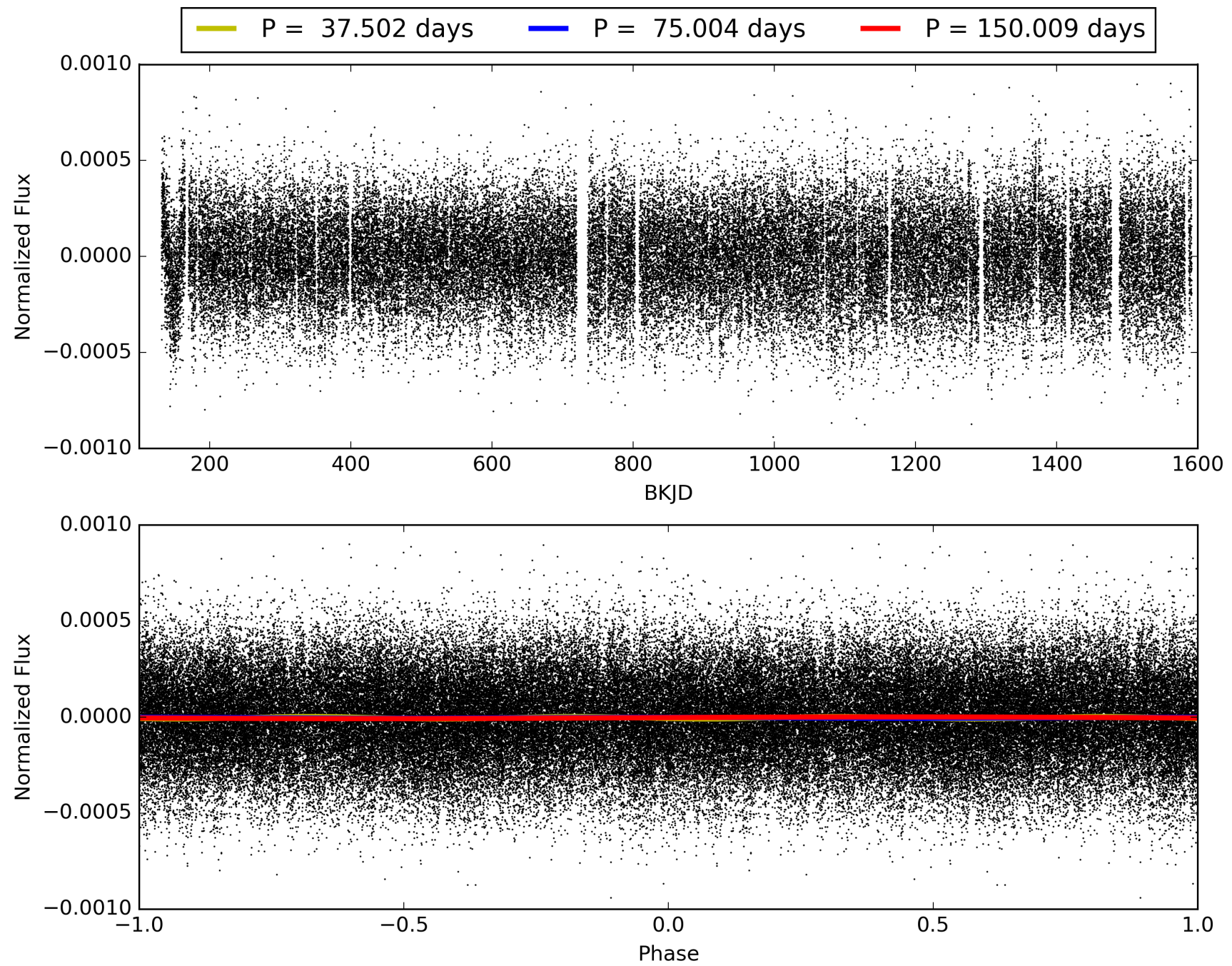
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [350.40σ]
LongPeriod-sig: 100.0% [112.70σ]
ModelChiSquare2-sig: 15.1%
ModelChiSquareGof-sig: 82.1%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 0.2951
Centroid-sig: 10.3%
Centroid-so: 0.683 arcsec [1.35σ]
OotOffset-rm: 1.025 arcsec [1.19σ]
KicOffset-rm: 0.988 arcsec [1.26σ]
OotOffset-st: 2/4/4/1 [11]
KicOffset-st: 2/4/4/1 [11]
DiffImageQuality-fgm: 0.64 [7/11]
DiffImageOverlap-fno: 0.33 [4/12]

TCE 007465661-04, PDC Light Curves

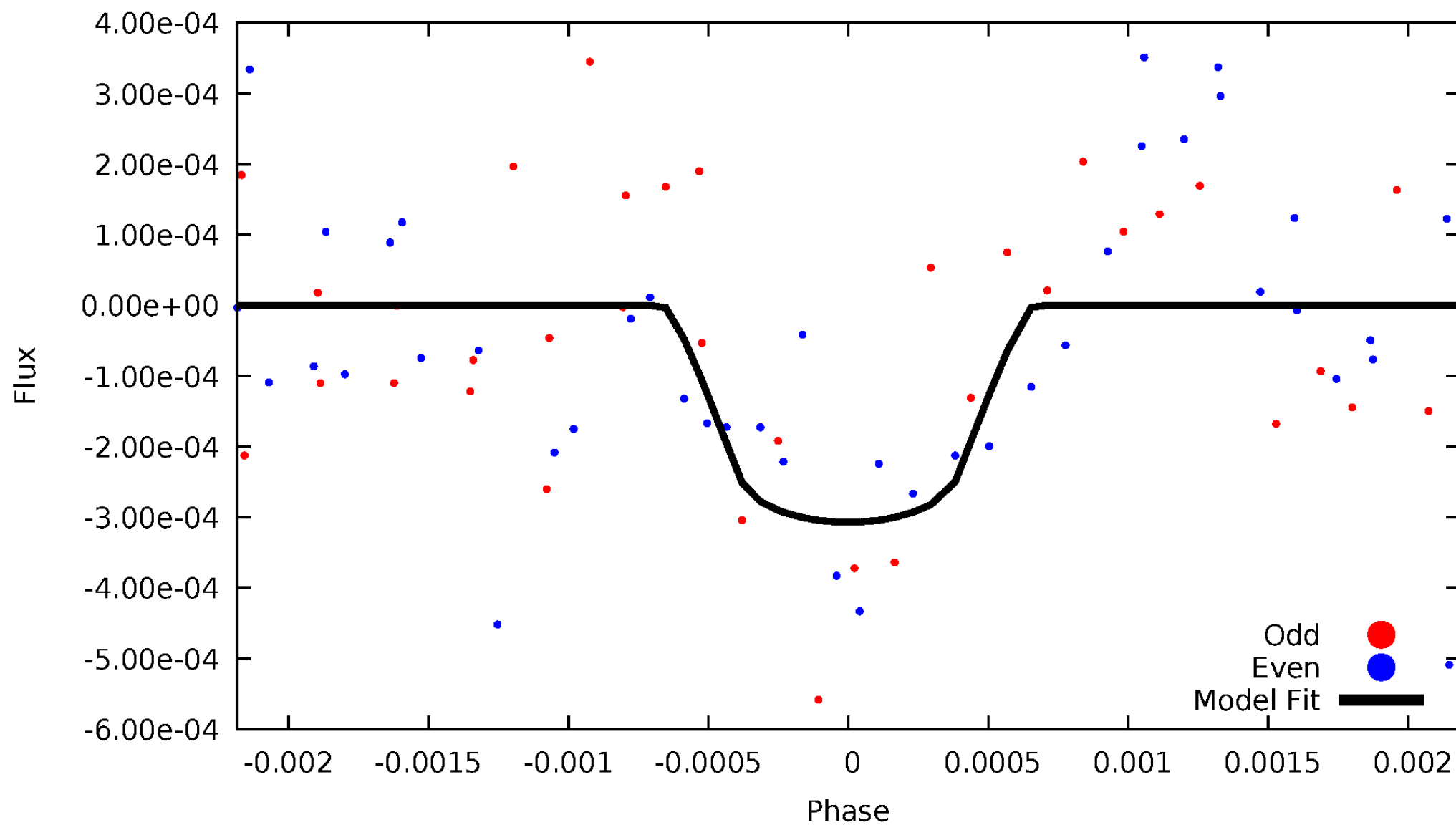


TCE 007465661-04



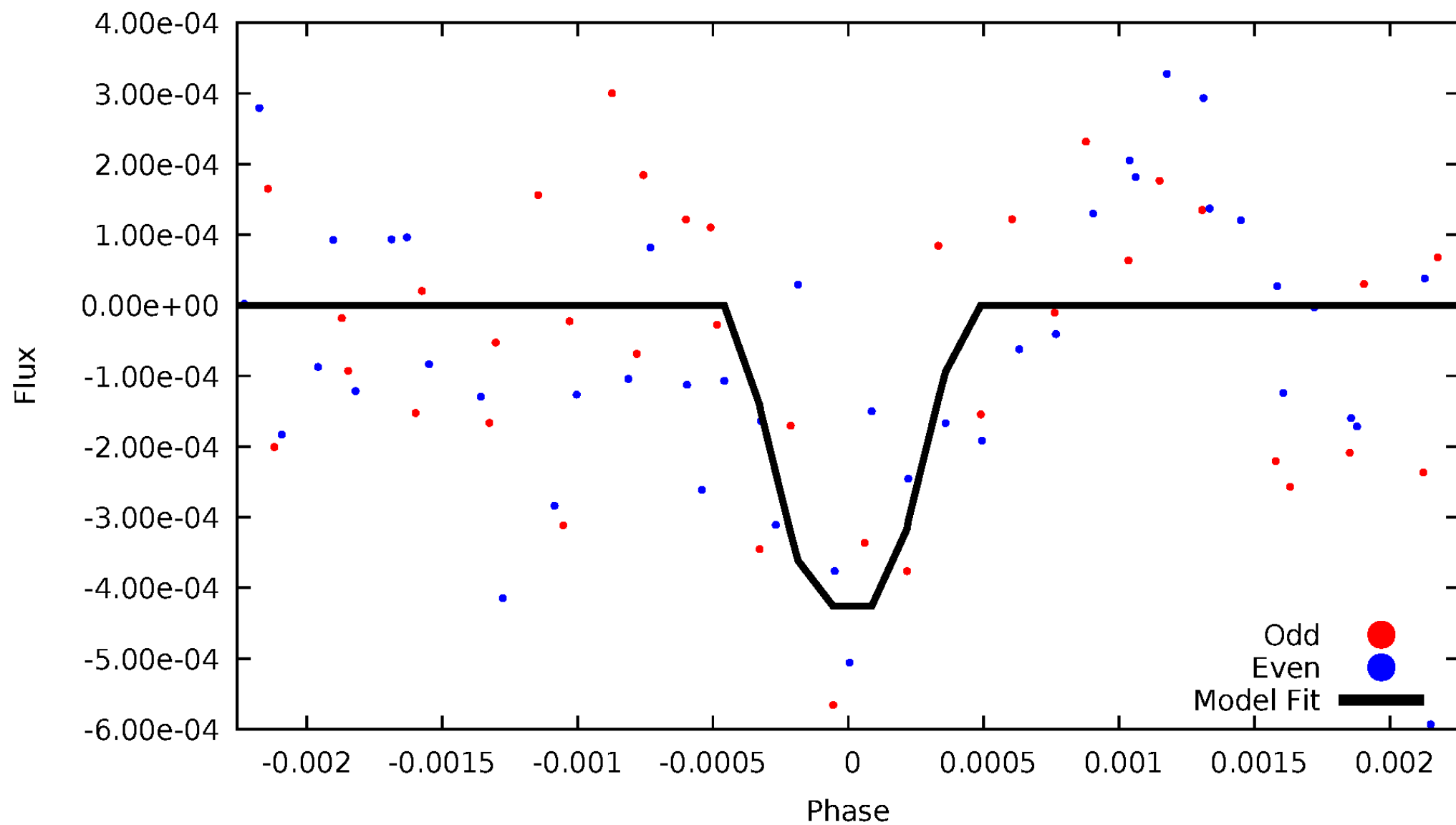
DV Odd/Even

TCE 007465661-04



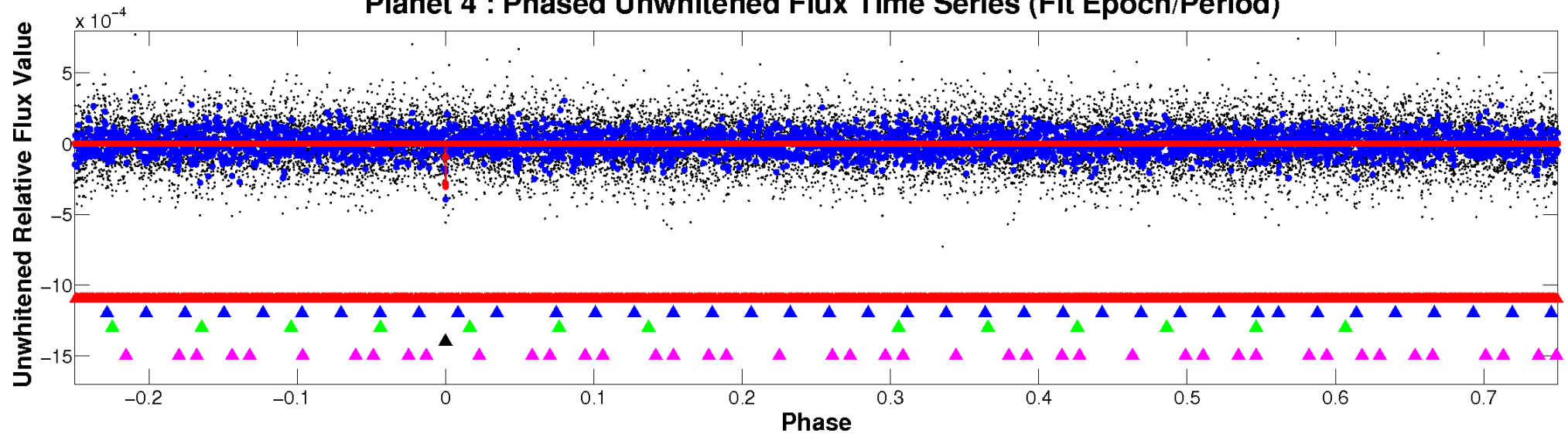
ALT Odd/Even

TCE 007465661-04

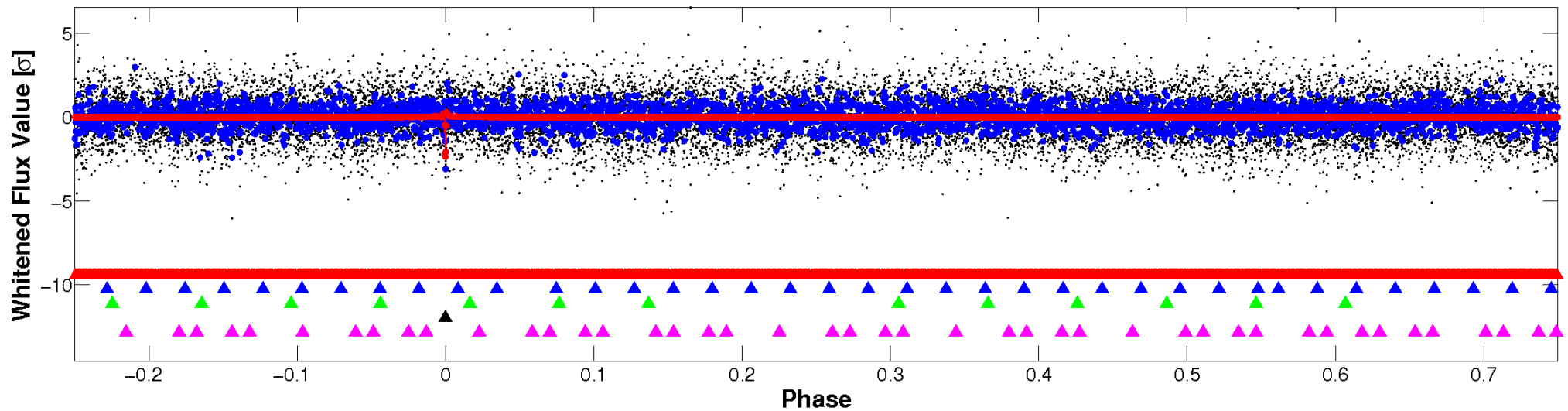


Non-Whitened Vs. Whitened Light Curve

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

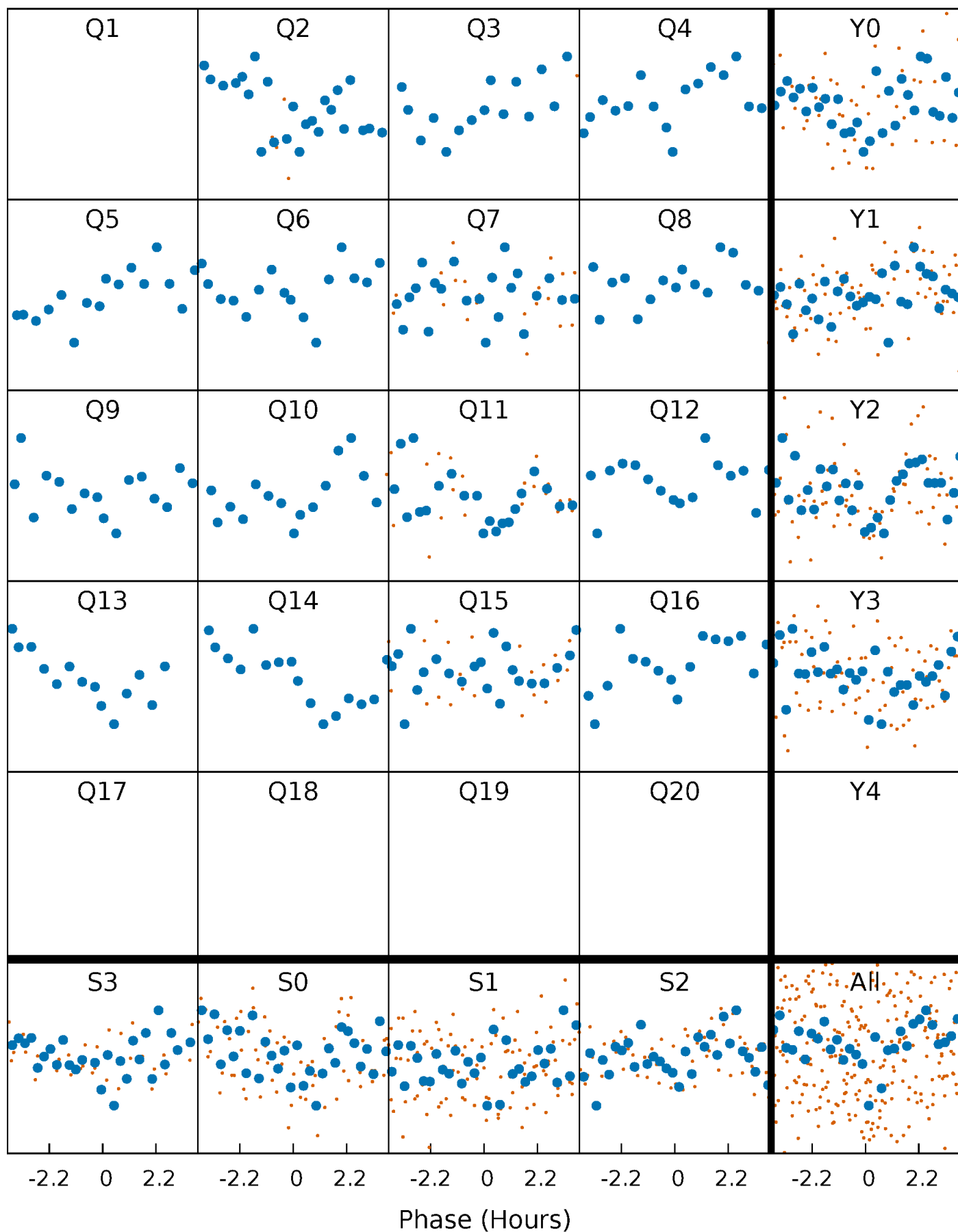


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



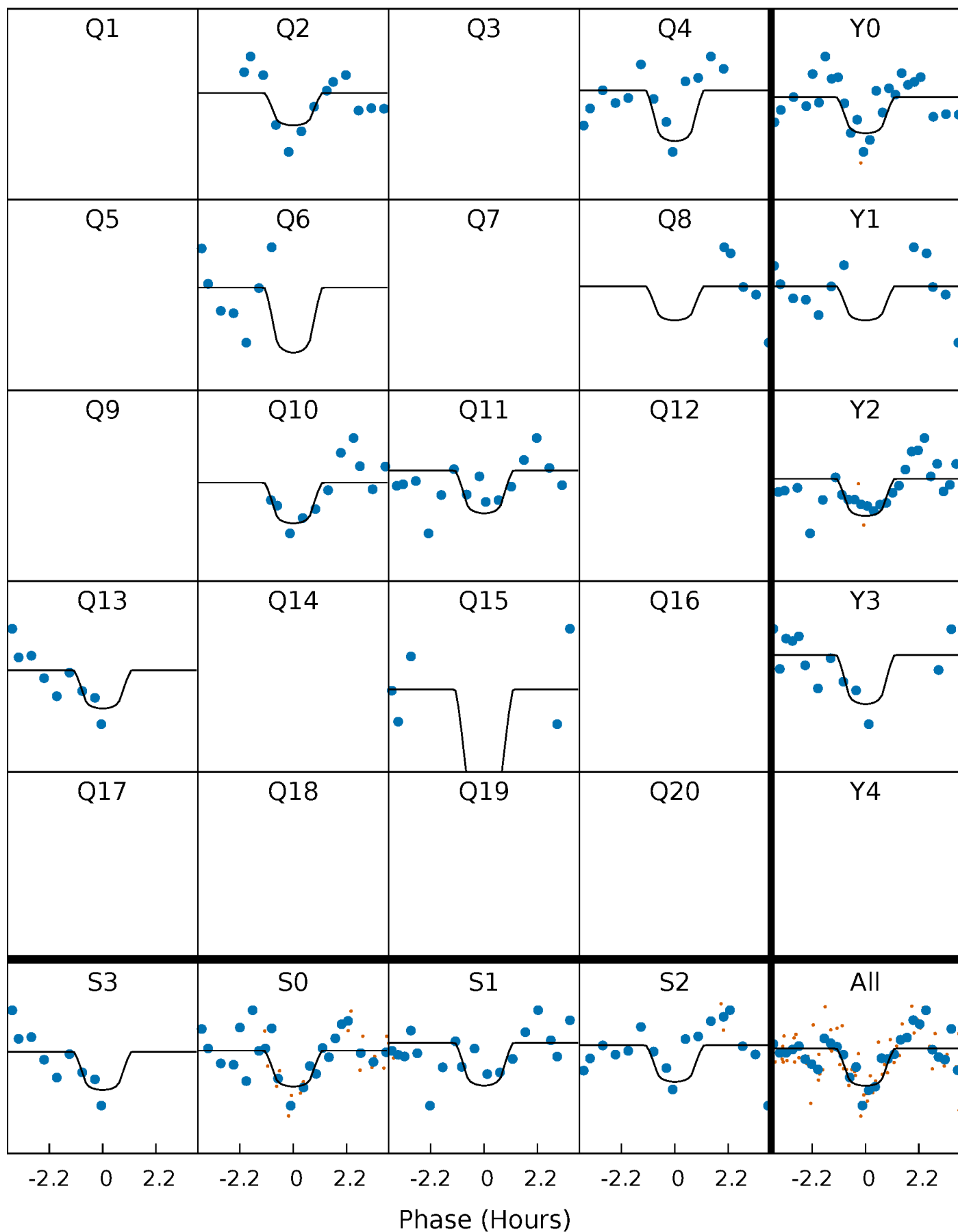
PDC Quarter-Phased Transit Curves

TCE 007465661-04 P= 75.004390 Days $T_0=181.428297$ (BKJD)



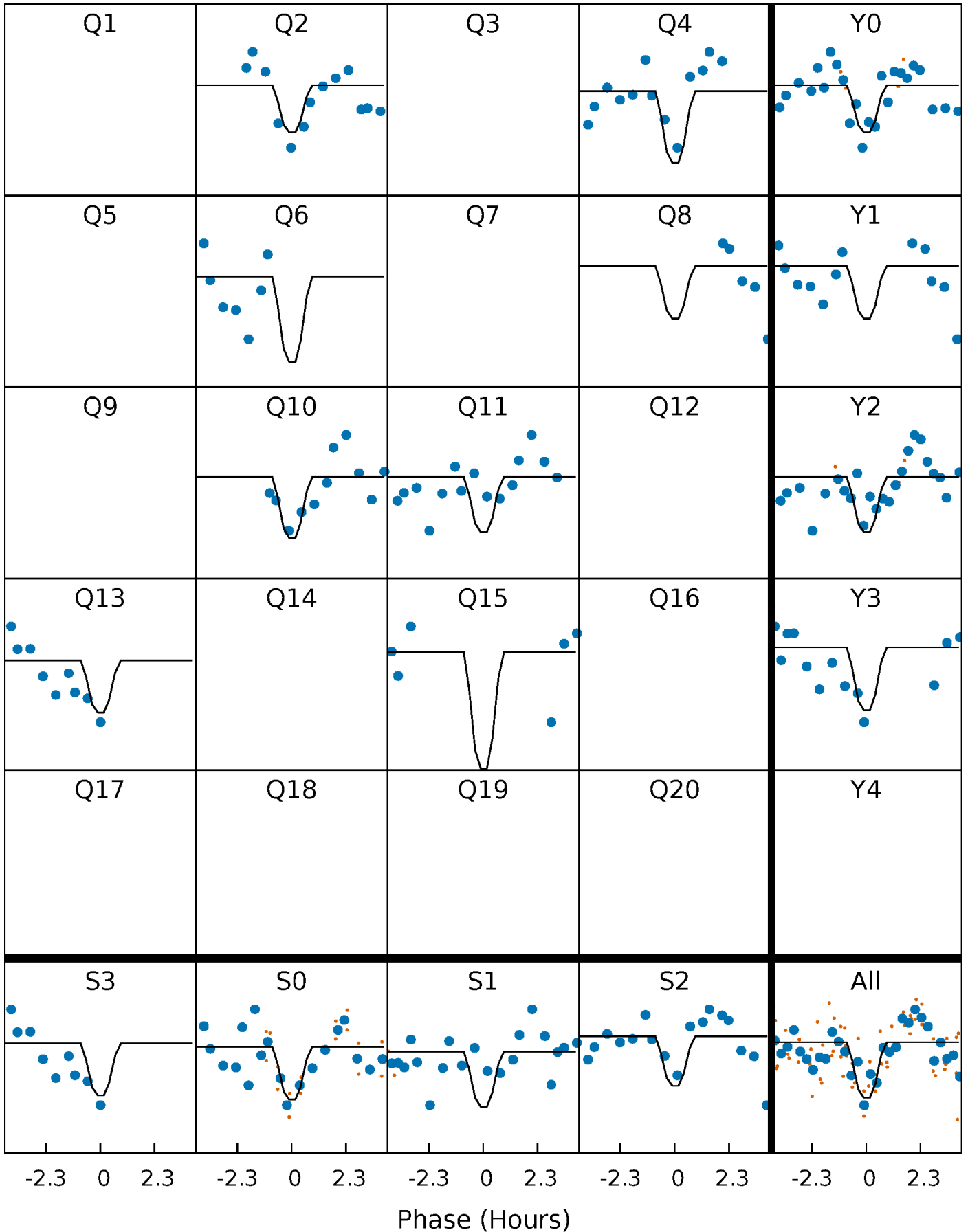
DV Quarter-Phased Transit Curves

TCE 007465661-04 P= 75.004390 Days $T_0=181.428297$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

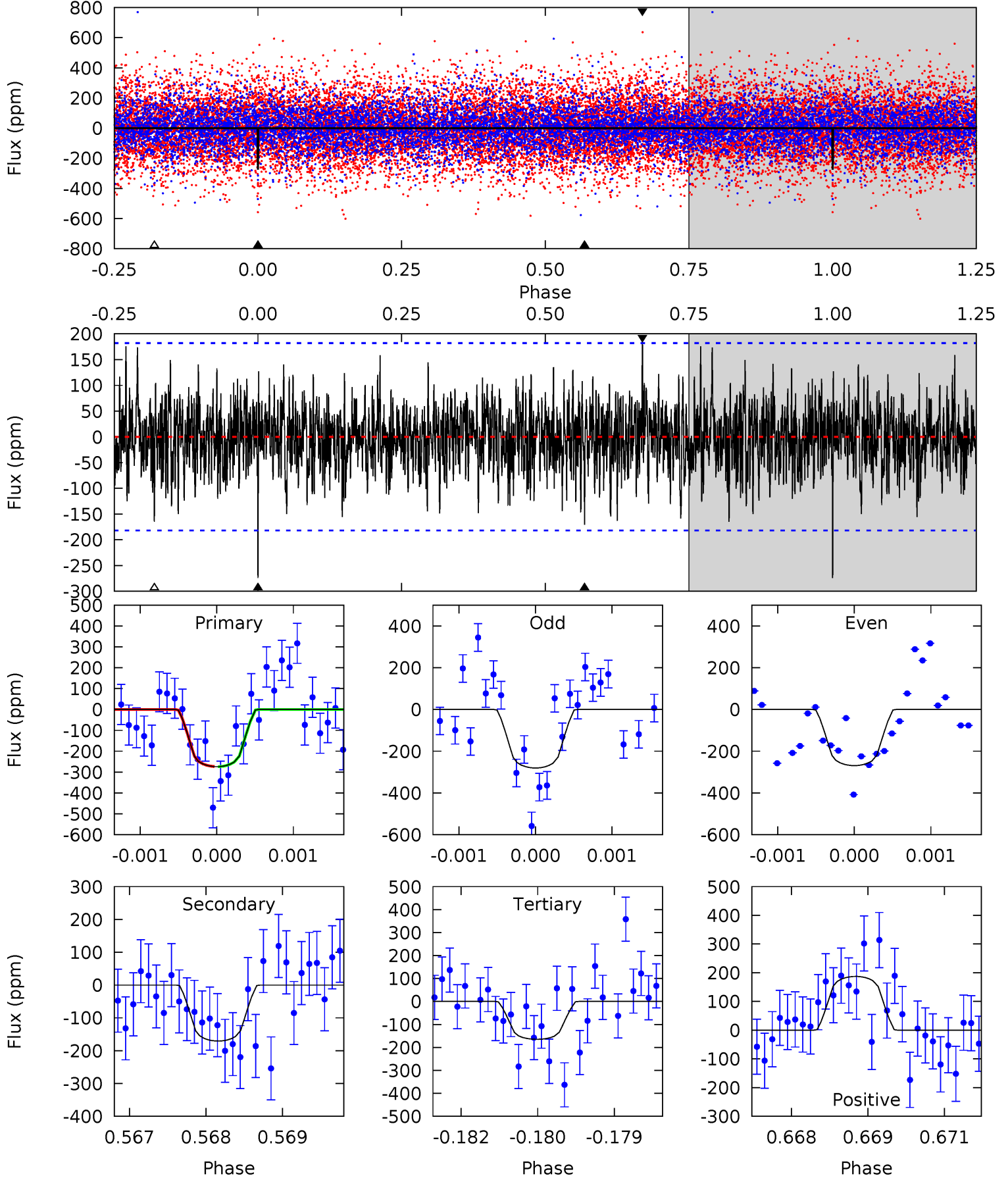
TCE 007465661-04 $P = 75.004893$ Days $T_0 = 181.423942$ (BKJD)



DV Model-Shift Uniqueness Test

007465661-04, P = 75.004390 Days, E = 106.423907 Days

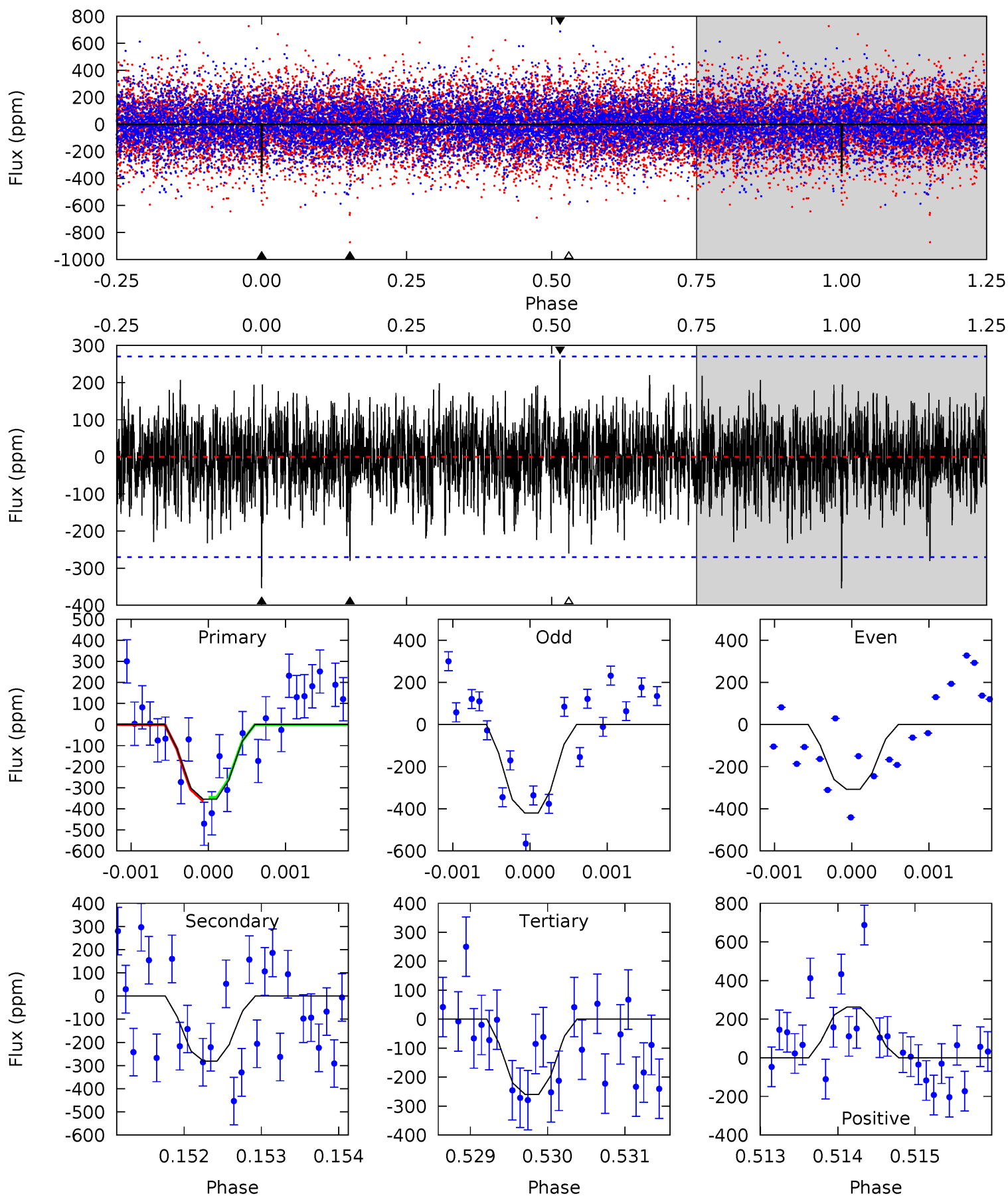
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.14	5.07	4.89	5.56	5.40	3.22	1.53	3.24	2.58	0.17	-0.49	0.17	0.93	0.41	0.01



Alt Model-Shift Uniqueness Test

007465661-04, P = 75.004893 Days, E = 106.419049 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.19	5.70	5.28	5.33	5.49	3.35	1.48	1.91	1.85	0.42	0.37	1.13	0.98	0.43	0.16



Stellar Parameters For KIC 007465661

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6088^{+204}_{-167}	$3.476^{+0.392}_{-0.098}$	$0.120^{+0.250}_{-0.250}$	$4.112^{+0.753}_{-1.756}$	$1.845^{+0.139}_{-0.418}$	$0.037^{+0.111}_{-0.014}$
	+3%/-3%	+11%/-3%	+208%/-208%	+18%/-43%	+8%/-23%	+297%/-37%
Source	PHO1	FLK73	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 007465661-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-171 ± 34	$11.42^{+11.38}_{-7.65}$	1142^{+75}_{-110}	4391^{+2949}_{-950}	127^{+987}_{-96}
Alt.	-281 ± 49	$11.58^{+11.41}_{-7.93}$	1136^{+85}_{-121}	4787^{+3726}_{-1062}	209^{+1907}_{-158}

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

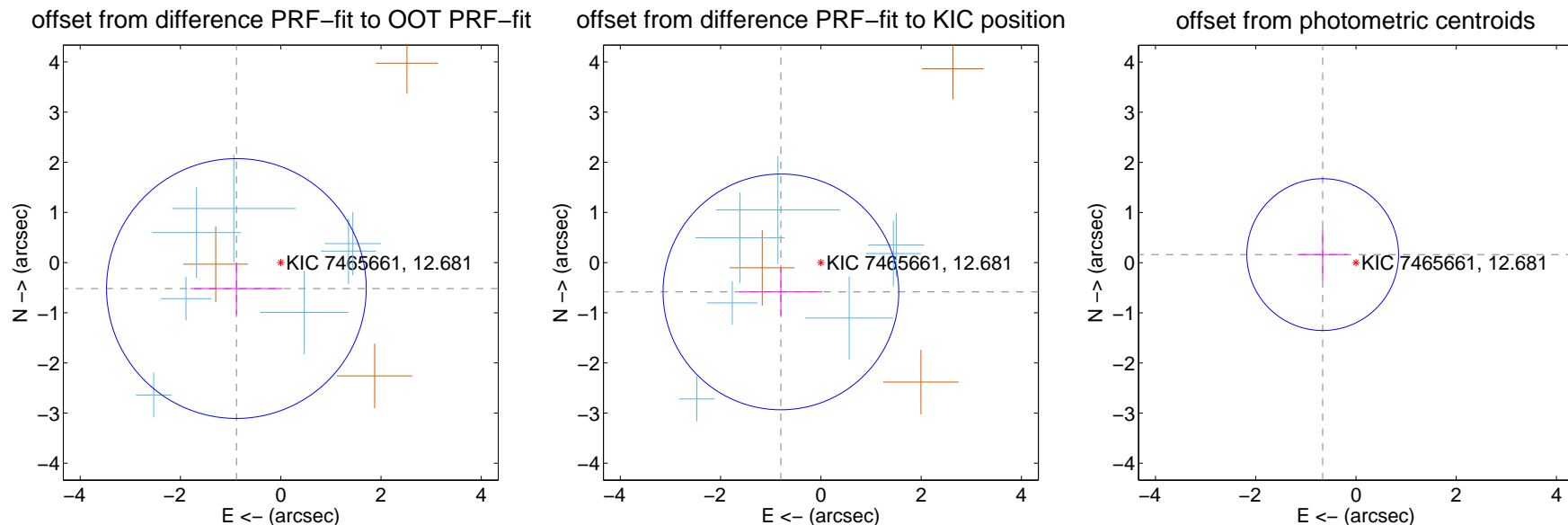
DV Centroid Data

Supplemental centroid analysis for 007465661-04. Kepler magnitude: 12.68. Transit SNR 8.57

There are 7 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.025 ± 0.863	1.19	0.885 ± 0.921	-0.518 ± 0.525
PRF-fit source offset from KIC position	0.988 ± 0.784	1.26	0.797 ± 0.824	-0.585 ± 0.472
photometric centroid source offset	0.68 ± 0.50	1.35	0.66 ± 0.50	0.16 ± 0.52



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.

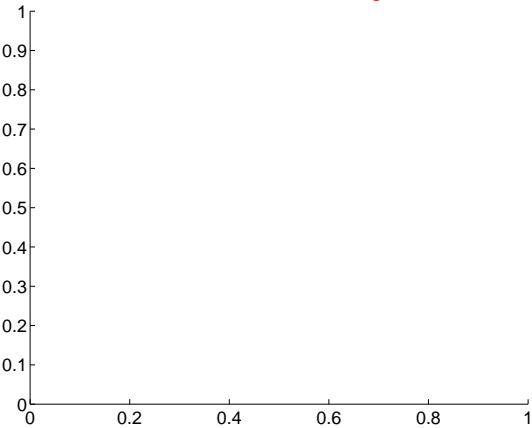
Q1 no difference image



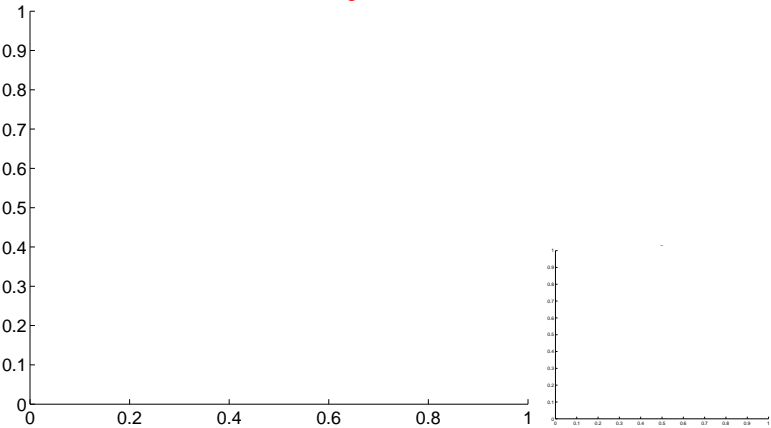
Q1 no OOT image



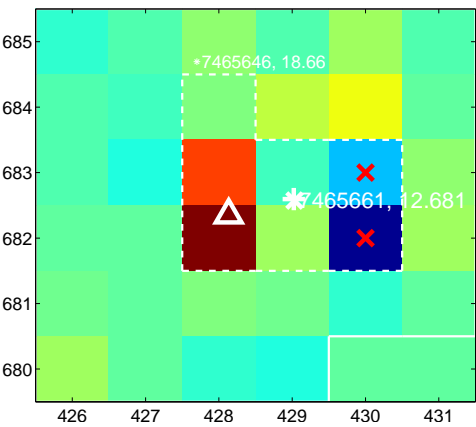
Q2 no difference image



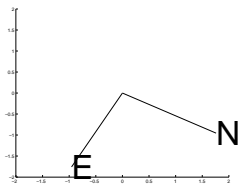
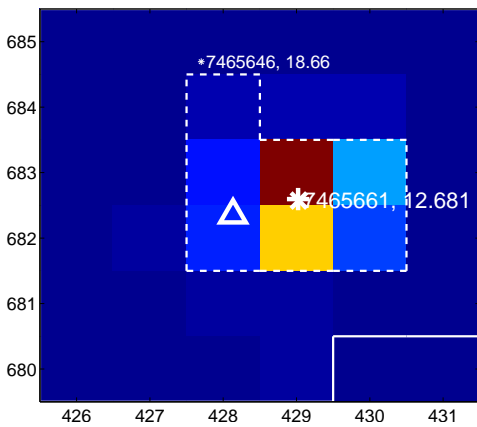
Q2 no OOT image



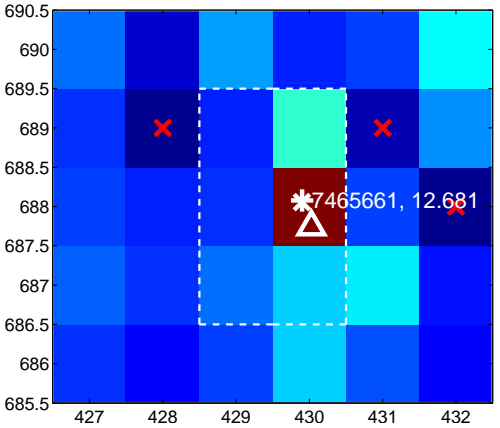
Q3 difference image



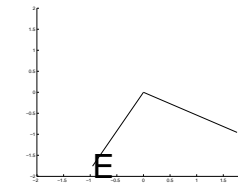
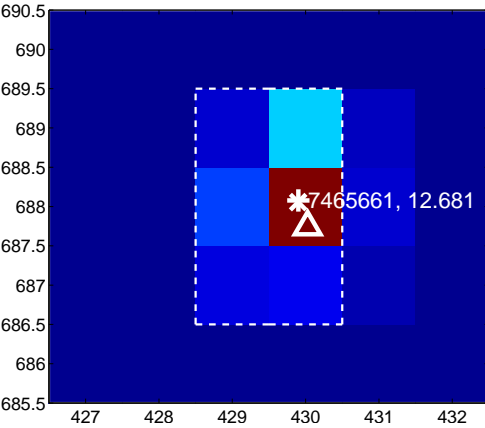
Q3 OOT image



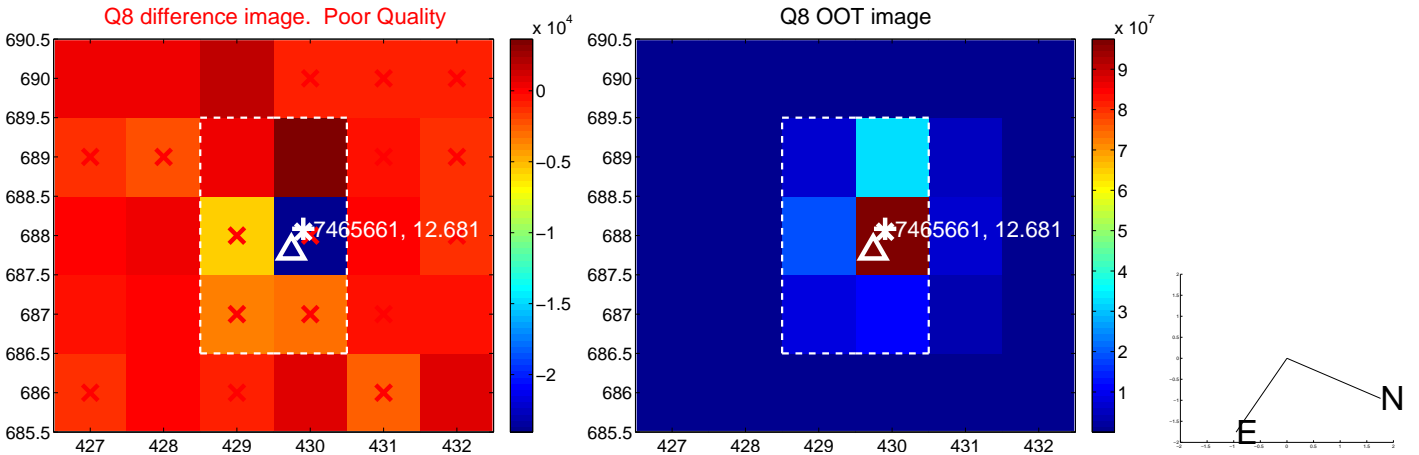
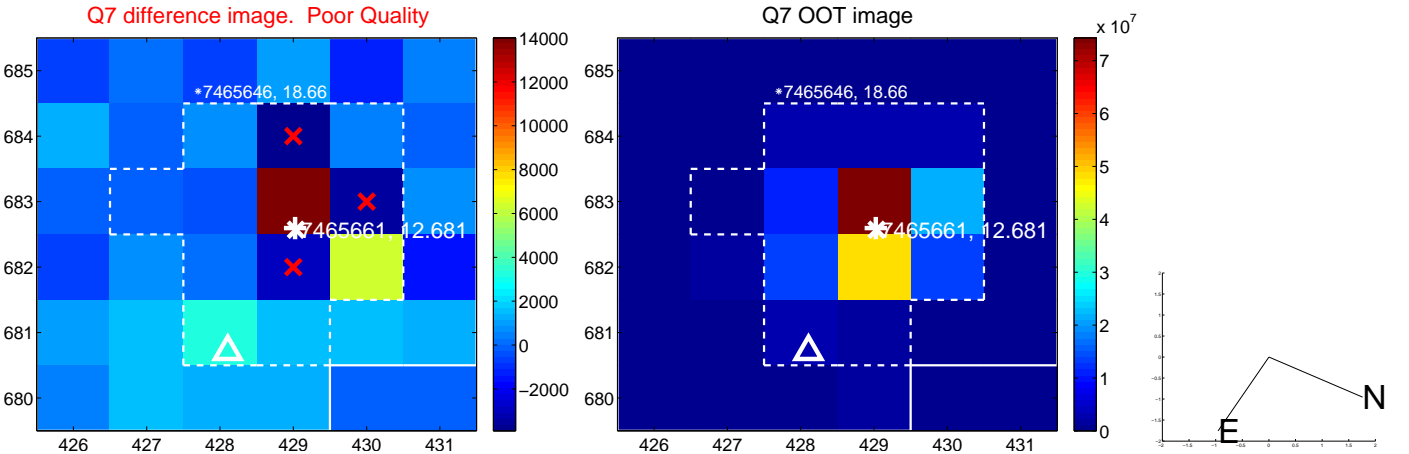
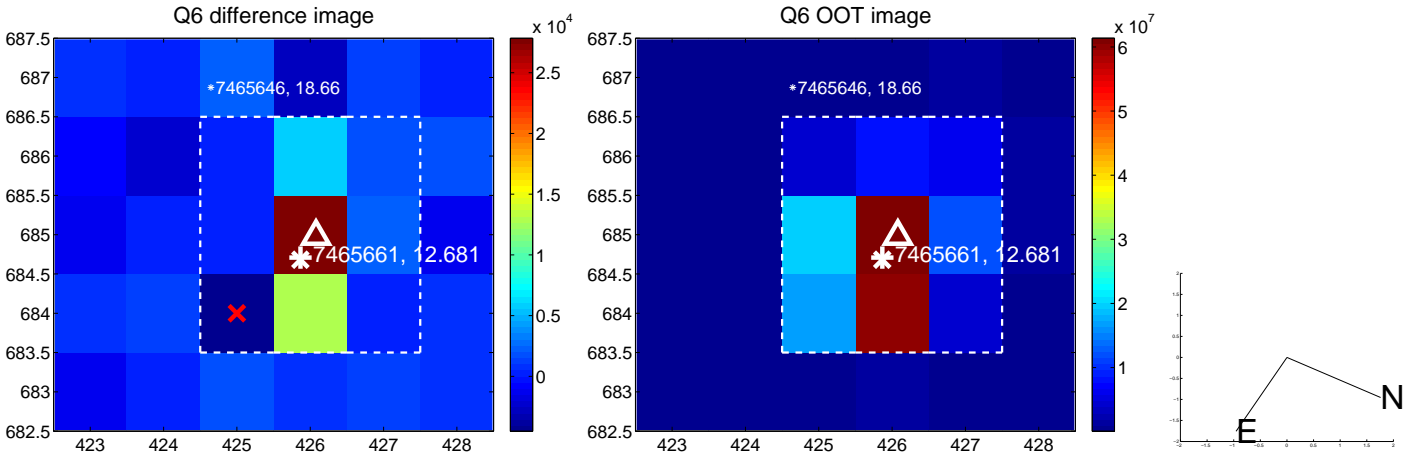
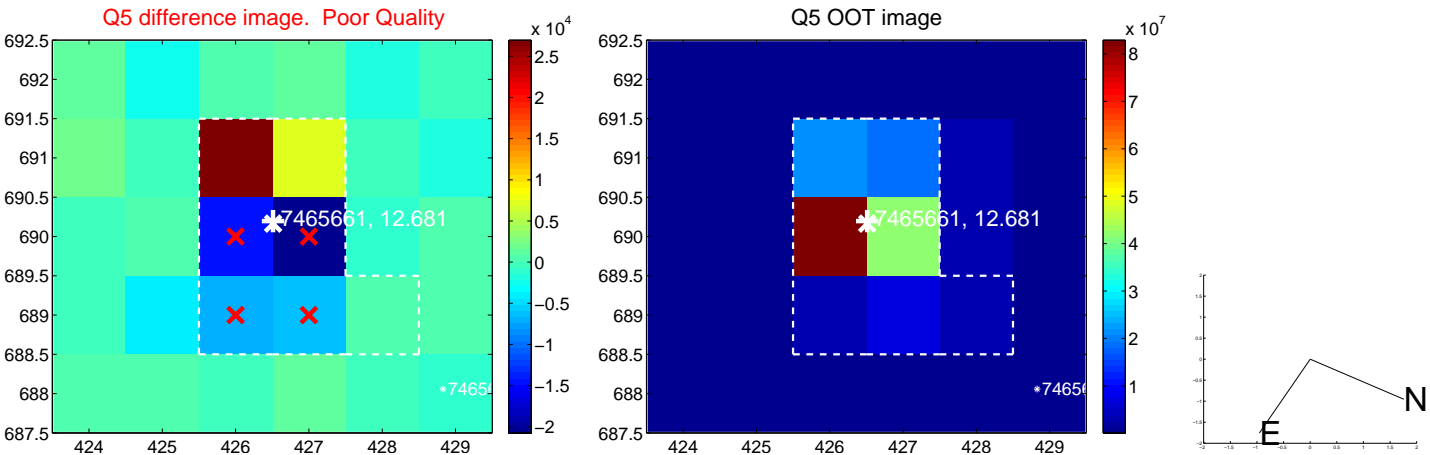
Q4 difference image



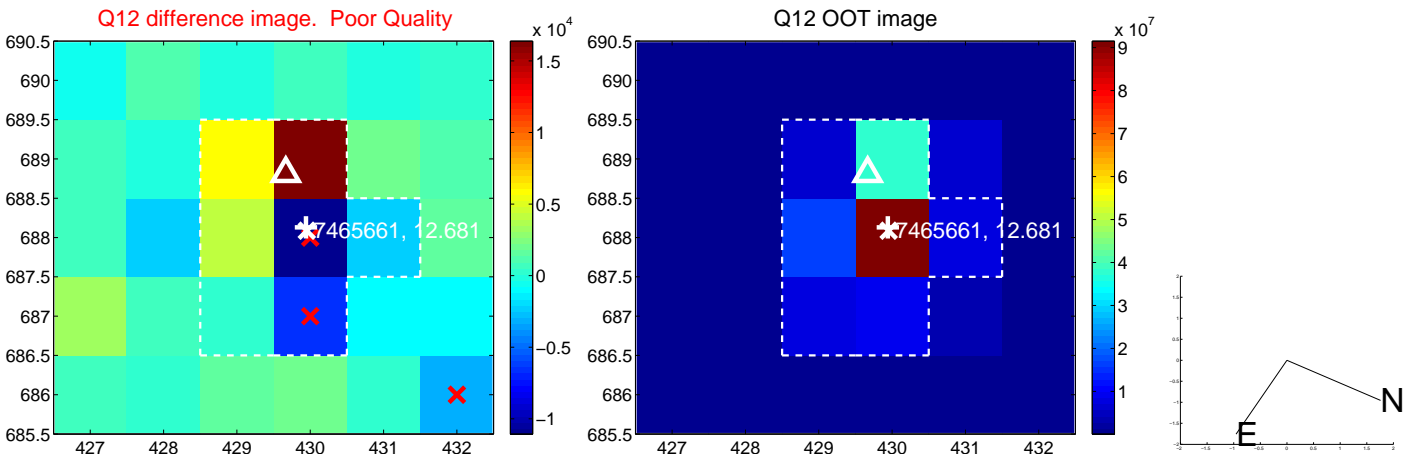
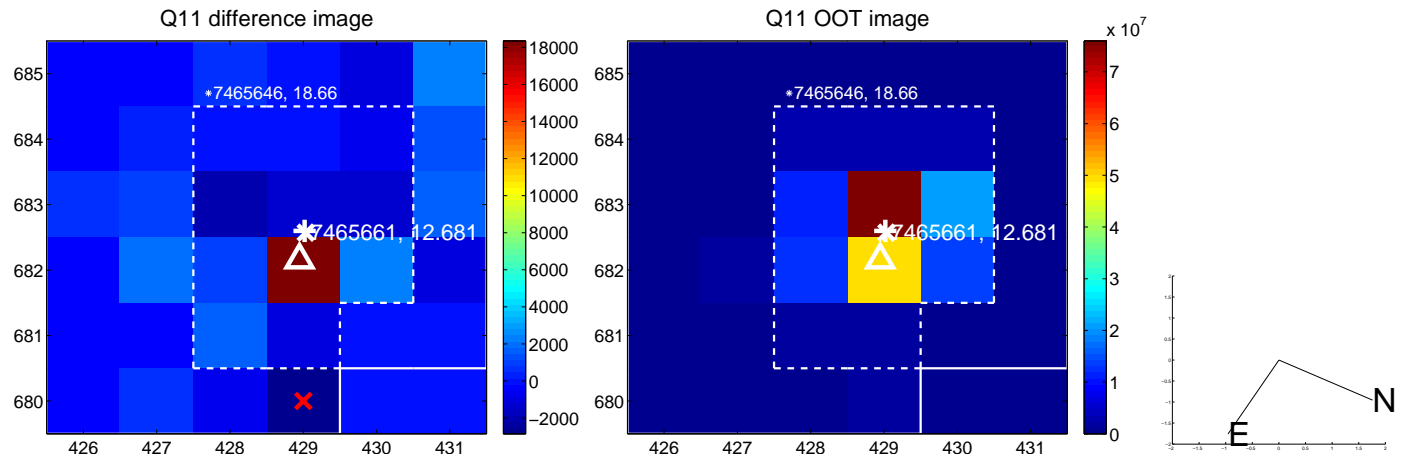
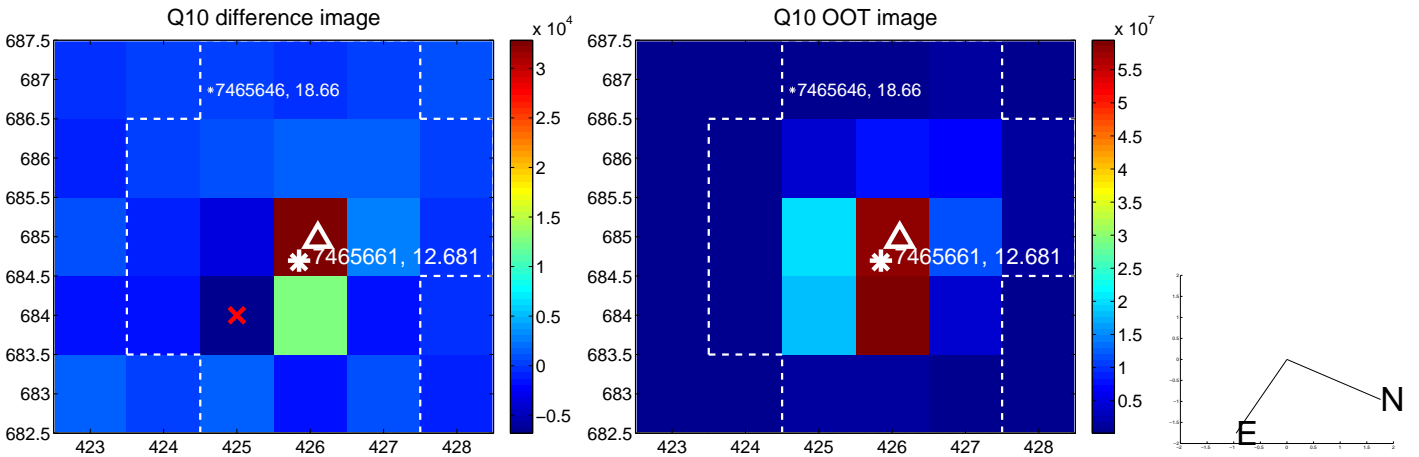
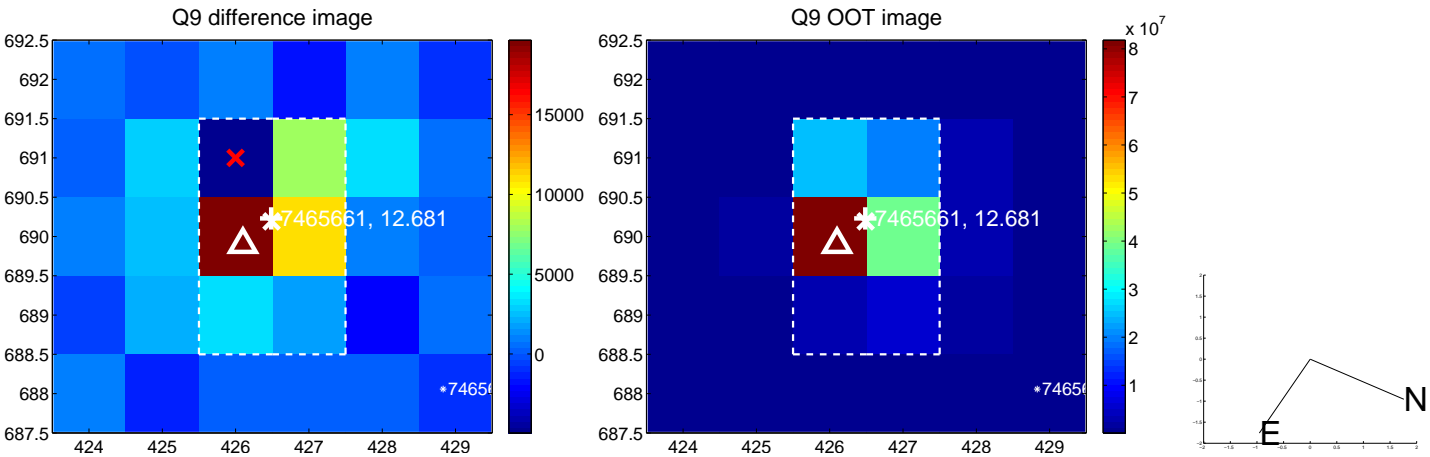
Q4 OOT image



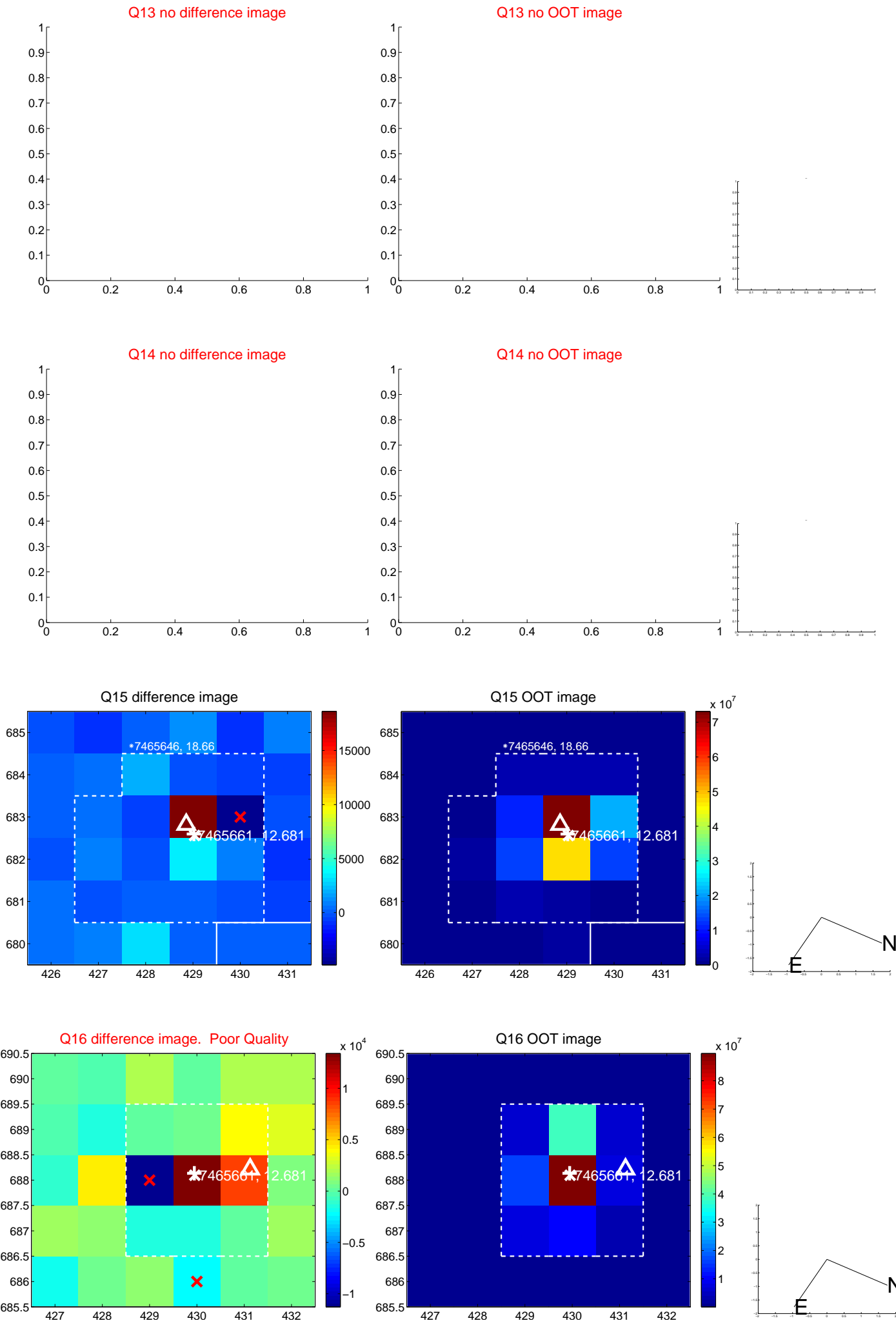
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



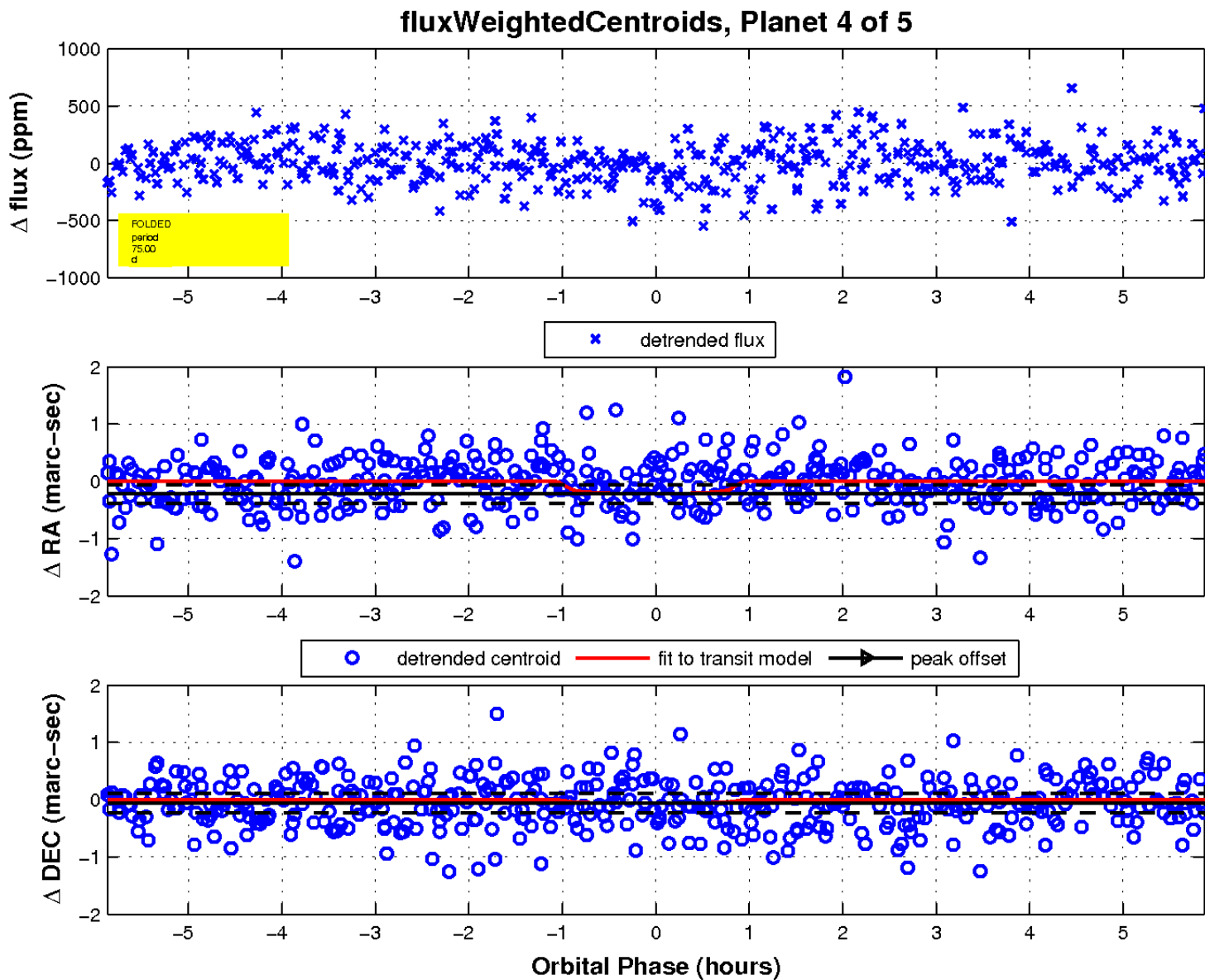
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

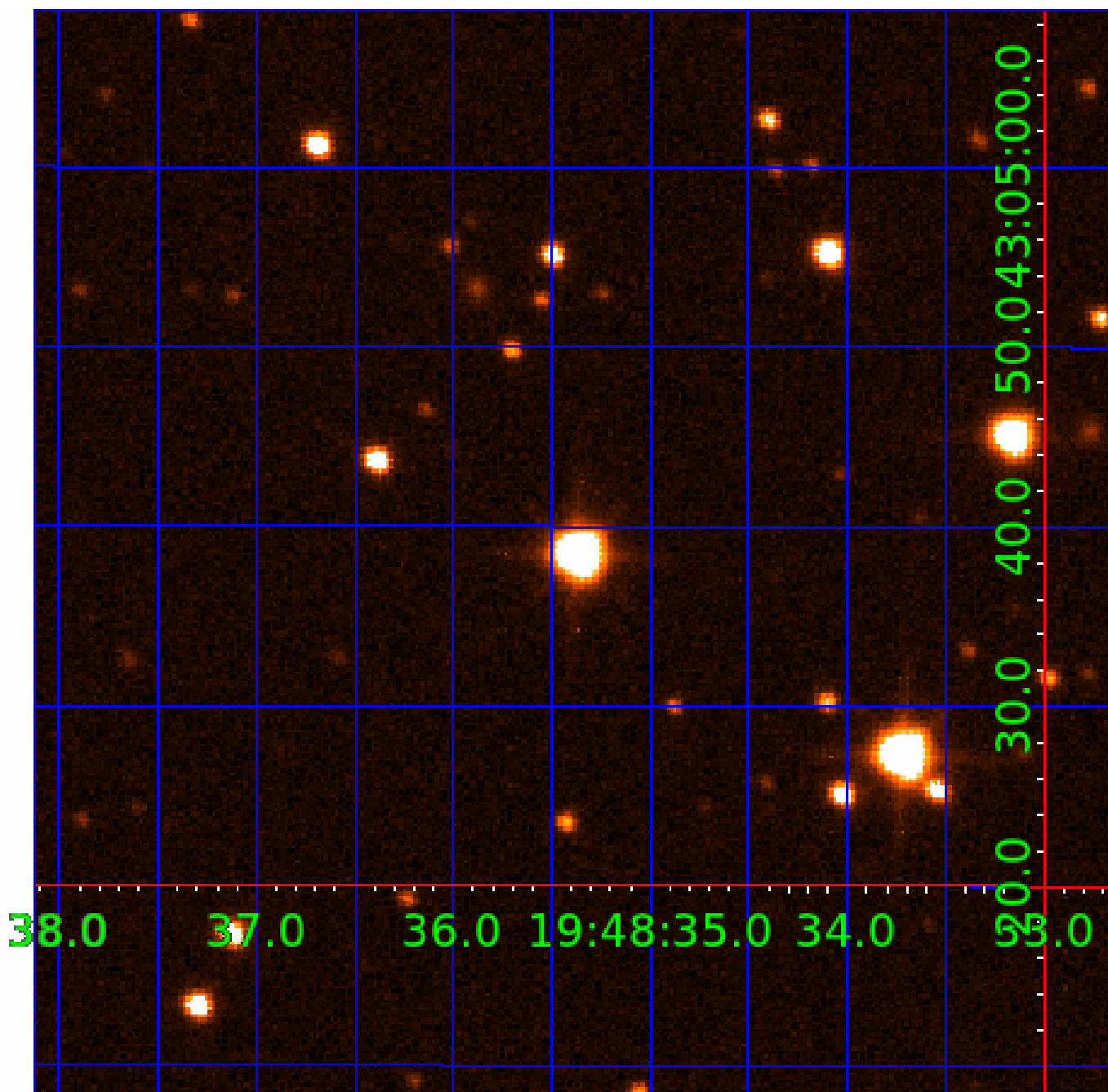


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007465661

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})
007465661-01	OBS	No	1.180223	131.970075	31.0	6.819	15.1	14.0	4.11	6088	2.36	28942.97
007465661-02	OBS	No	38.487883	148.545501	264.3	1.548	9.0	8.4	4.11	6088	6.77	277.80
007465661-03	OBS	No	110.246984	191.696763	253.9	7.244	8.9	9.0	4.11	6088	7.52	68.29
007465661-04	OBS	No	75.004390	181.428297	307.1	1.965	8.3	8.6	4.11	6088	8.19	114.12
007465661-05	OBS	No	33.037657	155.454949	226.5	2.000	8.2	-1.0	4.11	6088	6.18	340.52

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007465661-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV
007465661-02	OBS	FP	0.00	1	0	0	0	TRANS_GAPPED—MOD_NONUNIQ_DV
007465661-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
007465661-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007465661-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_ALT—CENT_NOFITS

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

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

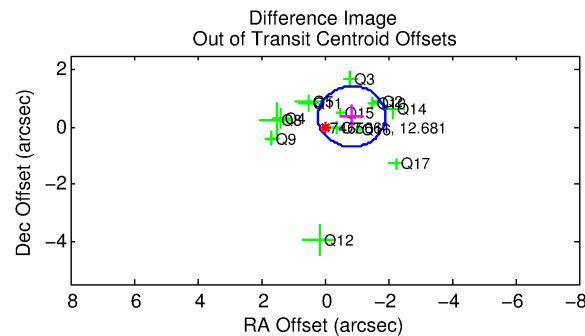
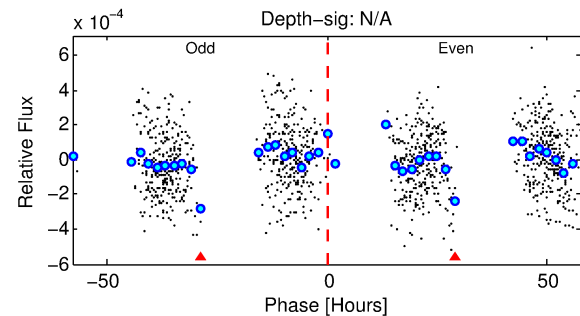
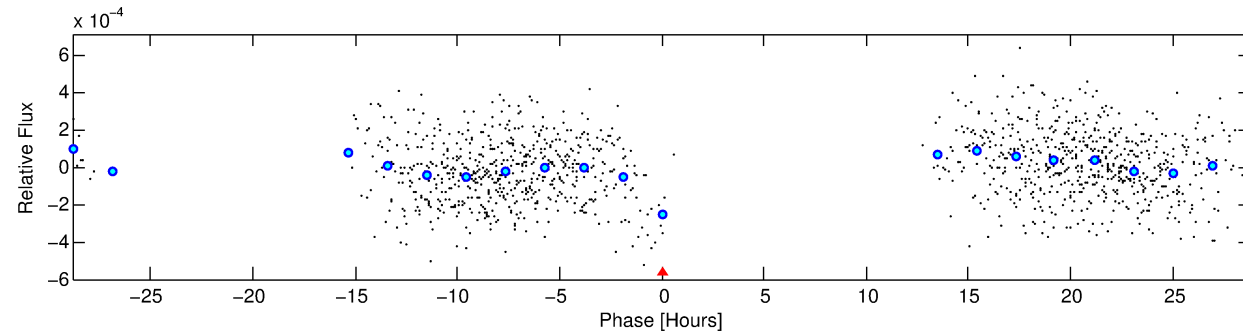
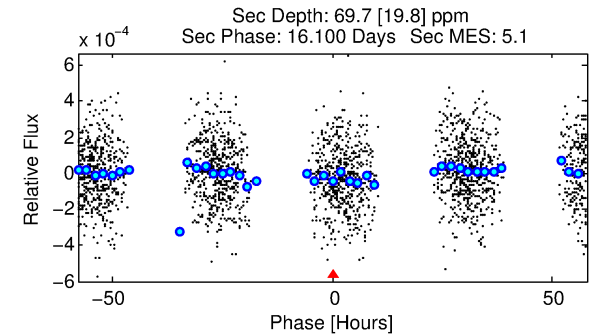
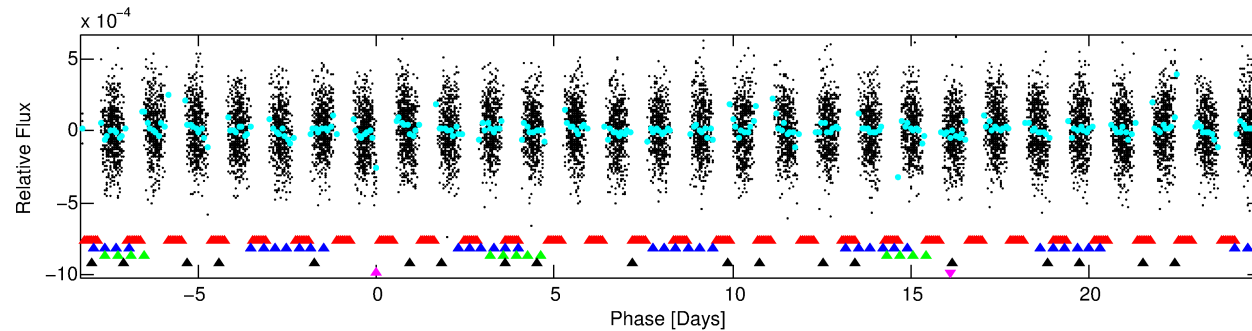
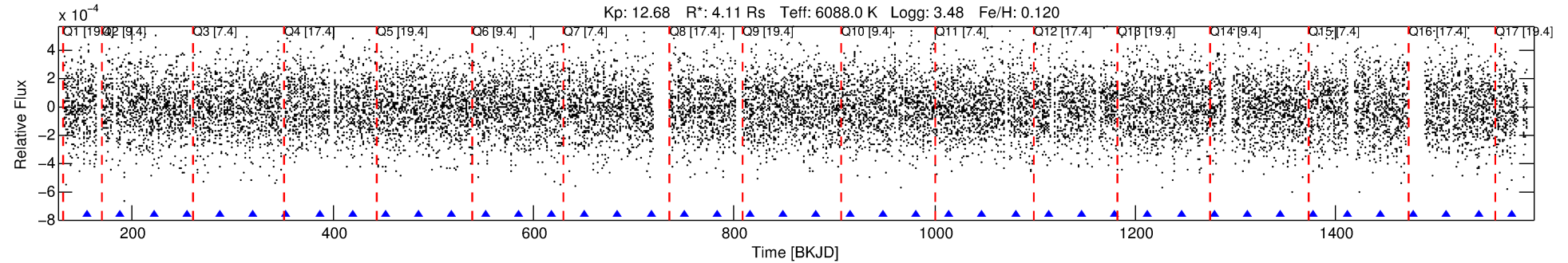
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007465661-05

No Significant Match Found

DV One-Page Summary

KIC: 7465661 Candidate: 5 of 5 Period: 33.038 d



TPS TCE Results:

Period = 33.03766 d
Epoch = 155.4549 BKJD

DV fit results are unavailable

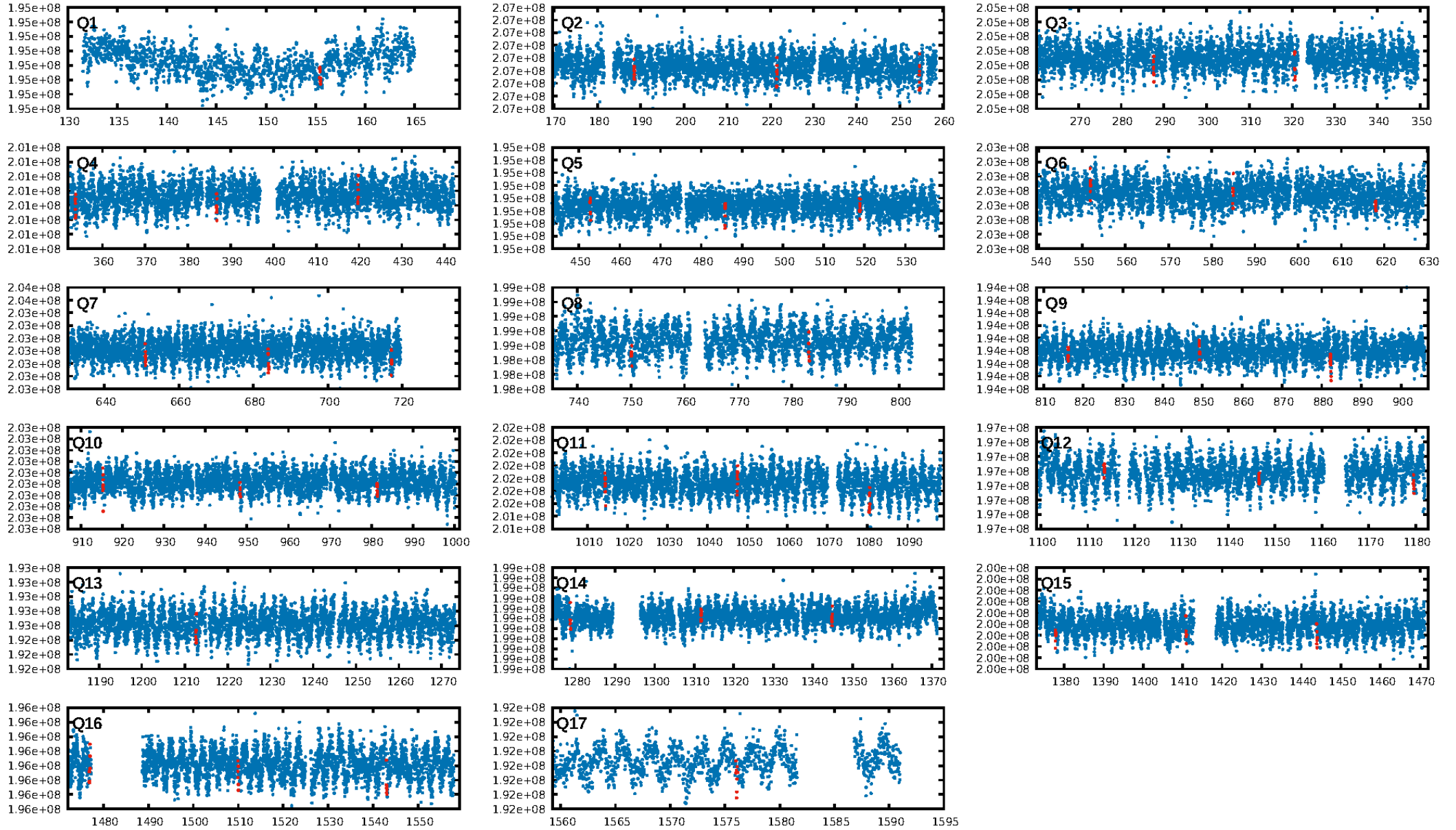
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [107.59σ]
LongPeriod-sig: 100.0% [51.72σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [25/25]
GhostDiagnostic-chr: 1.244
Centroid-sig: 17.7%
Centroid-so: 0.225 arcsec [1.10σ]
OotOffset-rm: 0.917 arcsec [2.60σ]
KicOffset-rm: 0.959 arcsec [2.69σ]
OotOffset-st: 3/4/4/3 [14]
KicOffset-st: 3/4/4/3 [14]
DiffImageQuality-fgm: 0.93 [13/14]
DiffImageOverlap-fno: 0.00 [0/17]

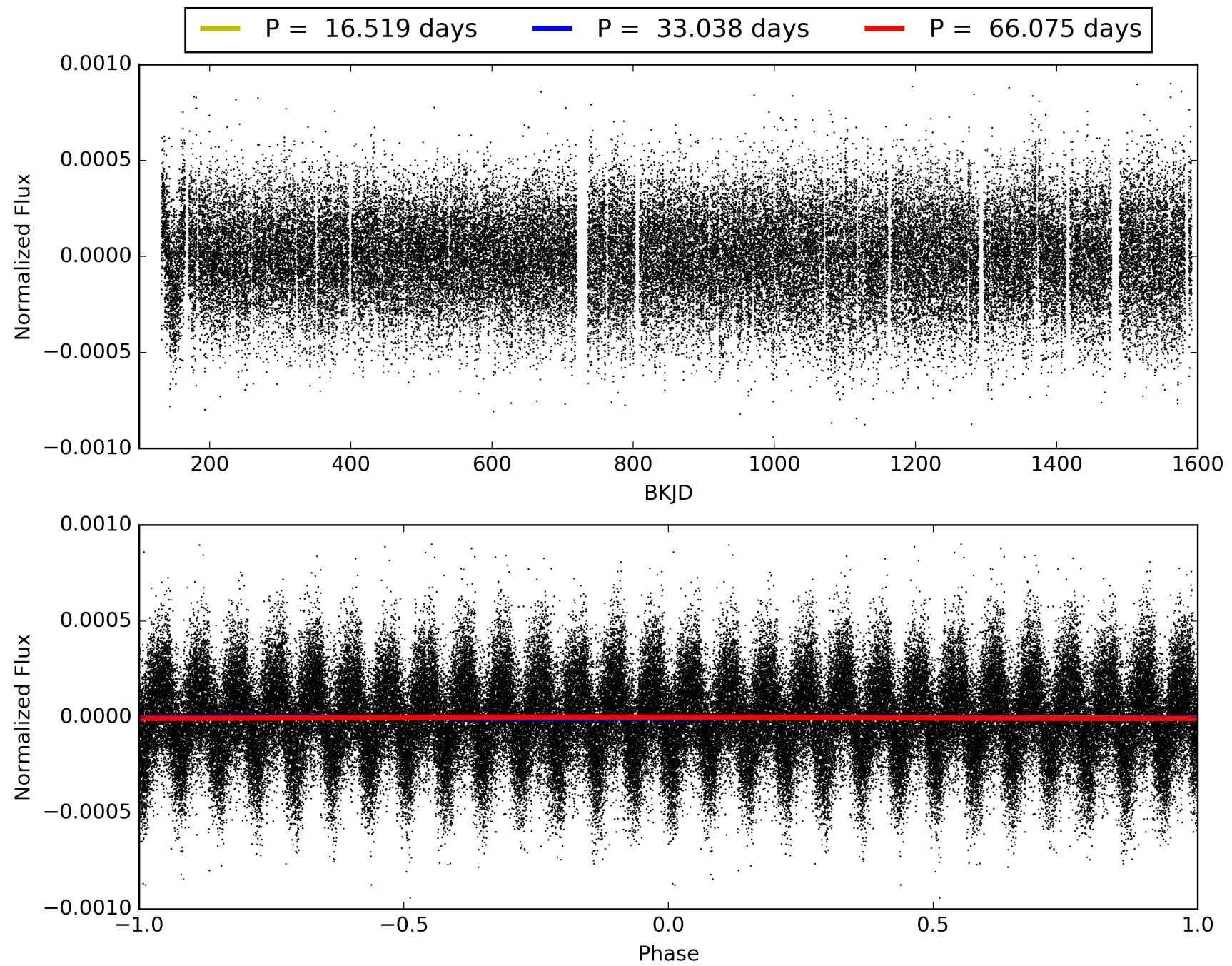
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 06:09:16 Z

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

TCE 007465661-05, PDC Light Curves

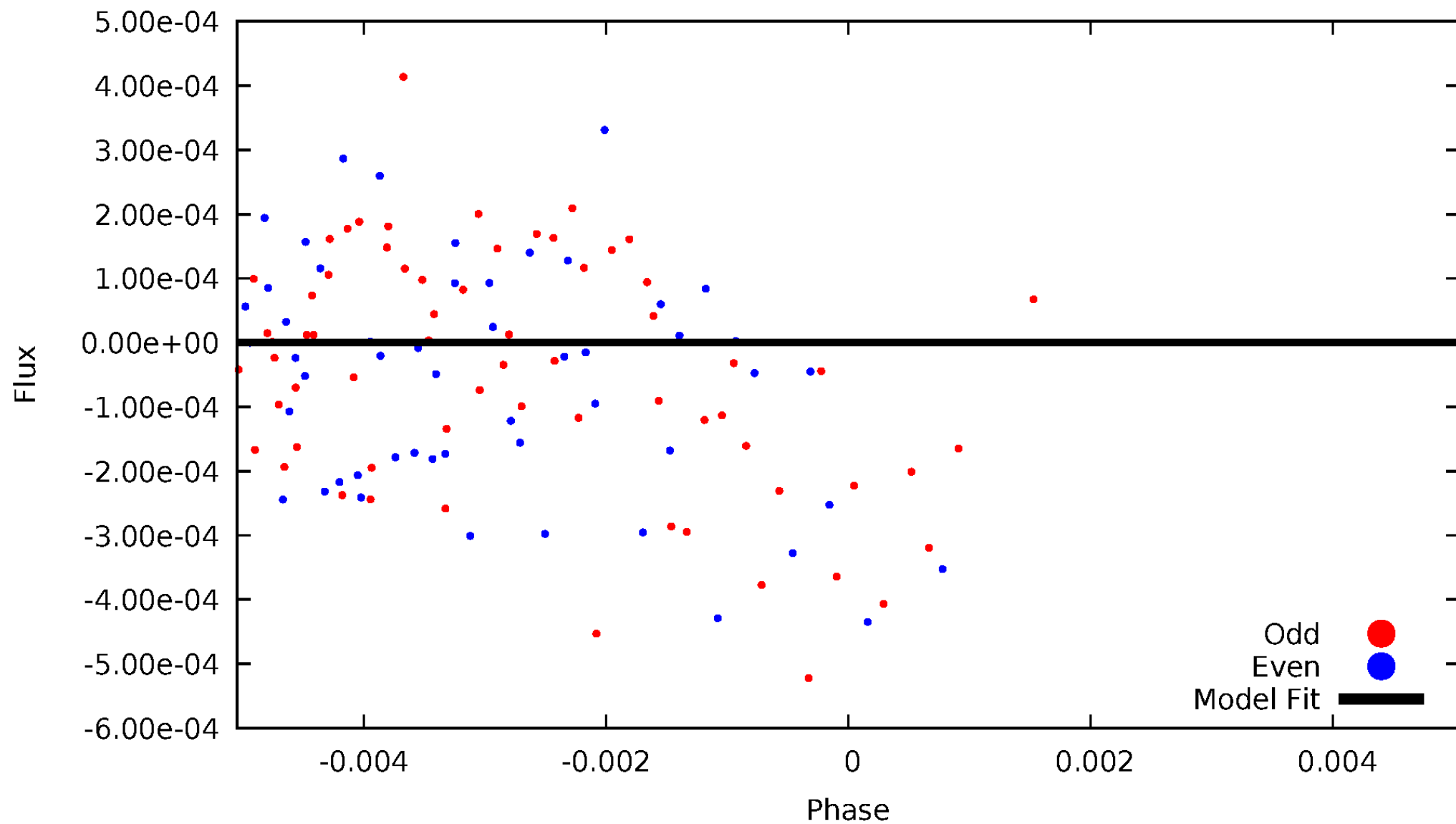


TCE 007465661-05



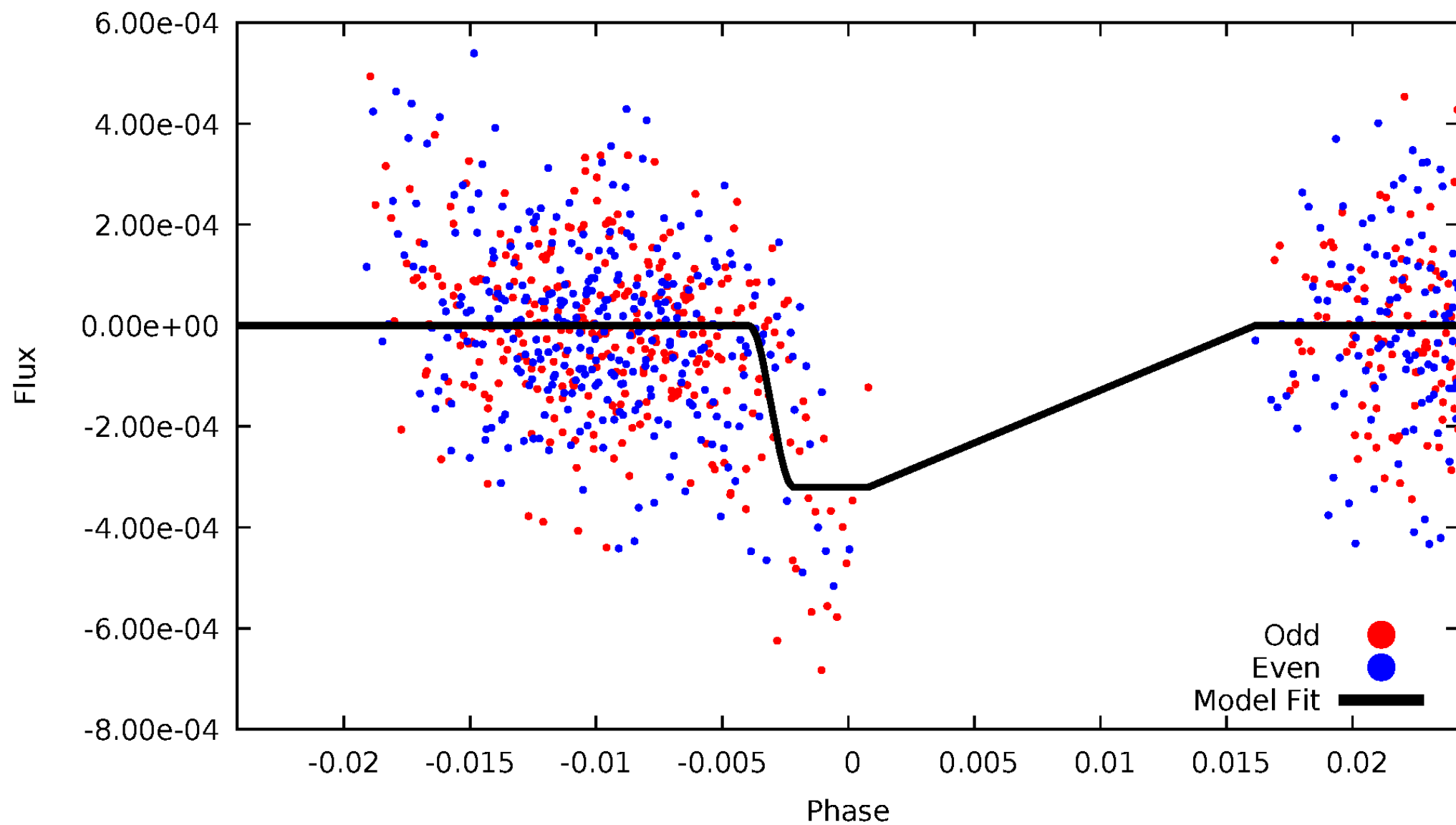
DV Odd/Even

TCE 007465661-05

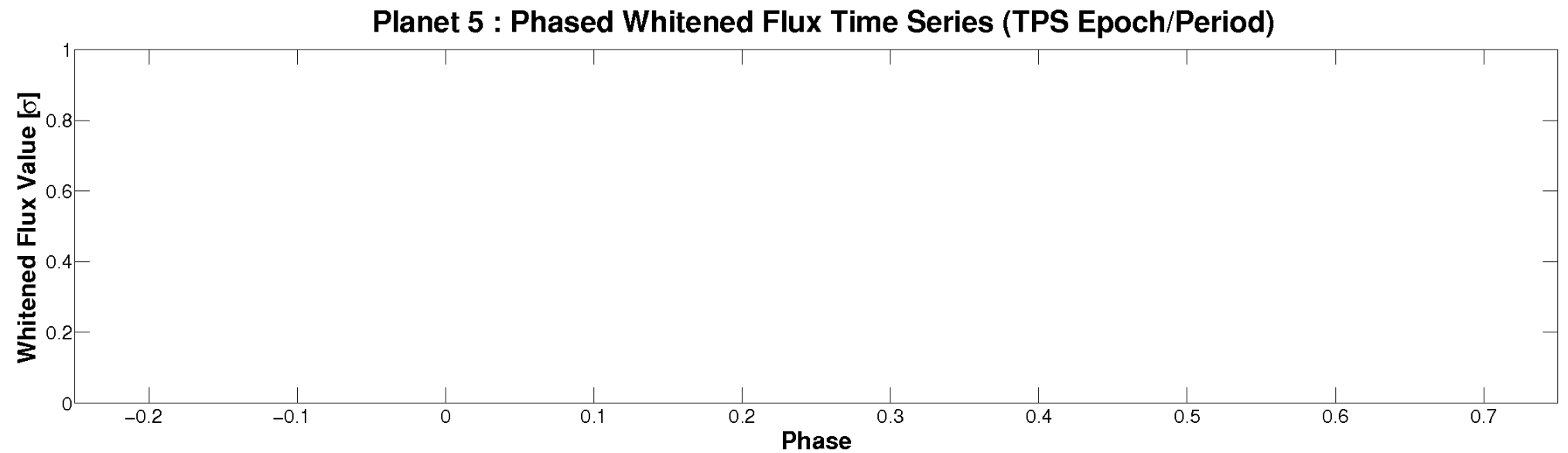
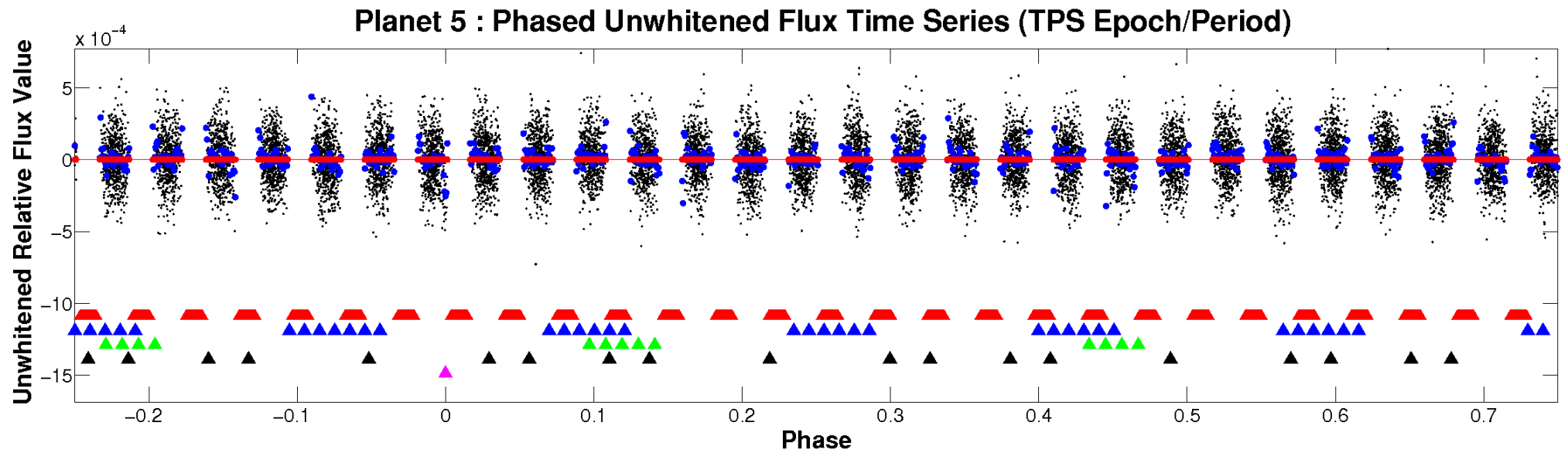


ALT Odd/Even

TCE 007465661-05

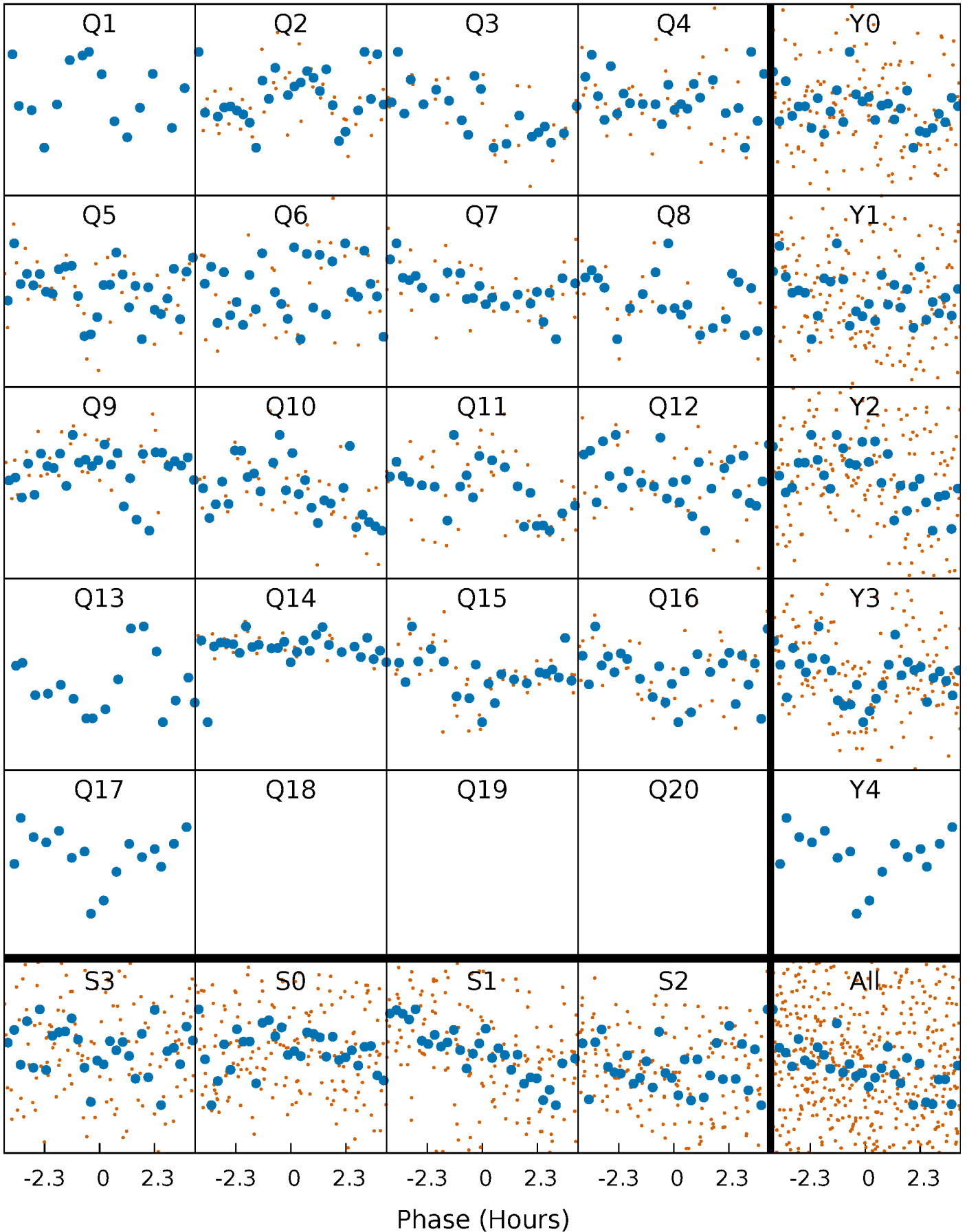


Non-Whitened Vs. Whitened Light Curve



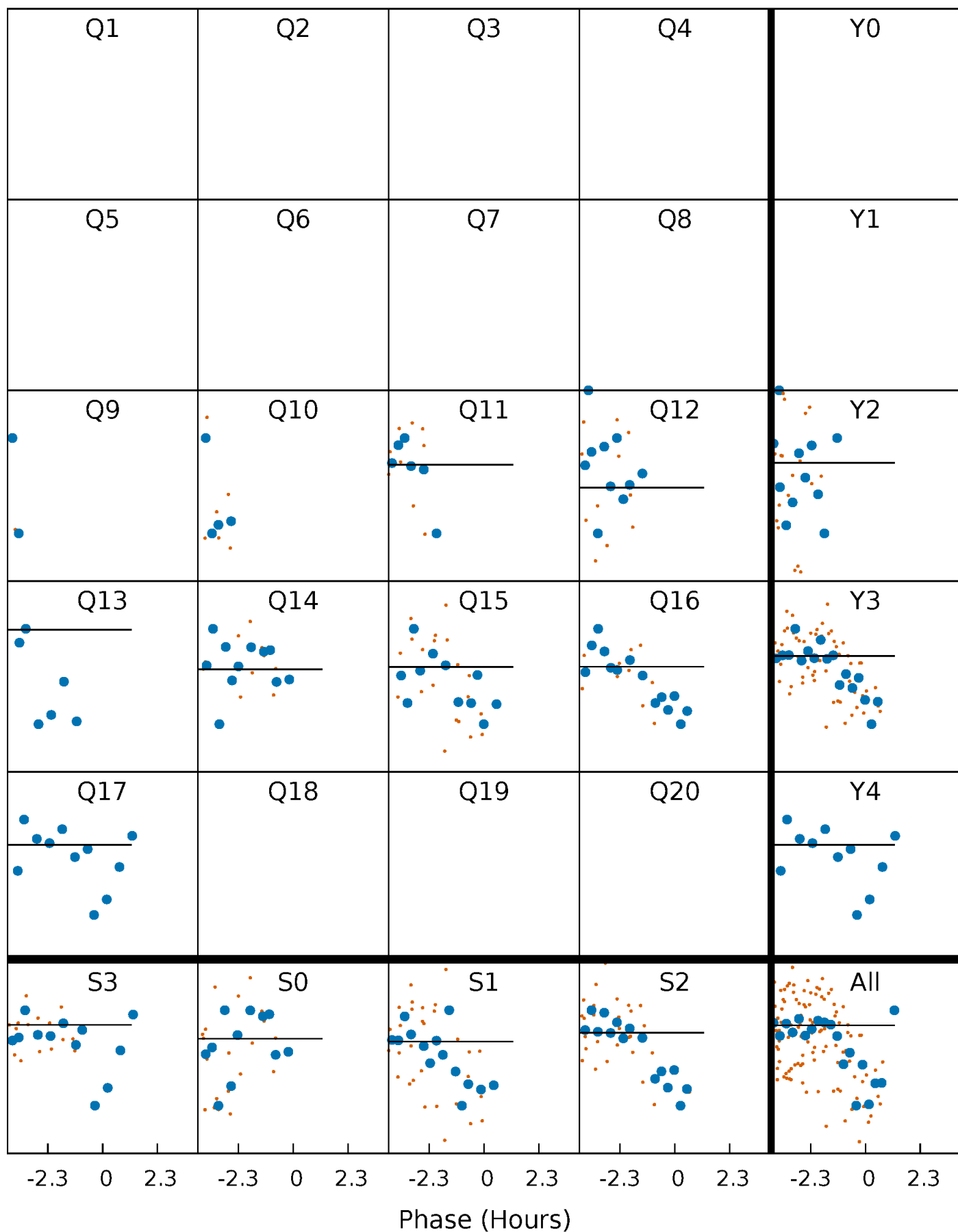
PDC Quarter-Phased Transit Curves

TCE 007465661-05 P= 33.037657 Days $T_0=155.454949$ (BKJD)



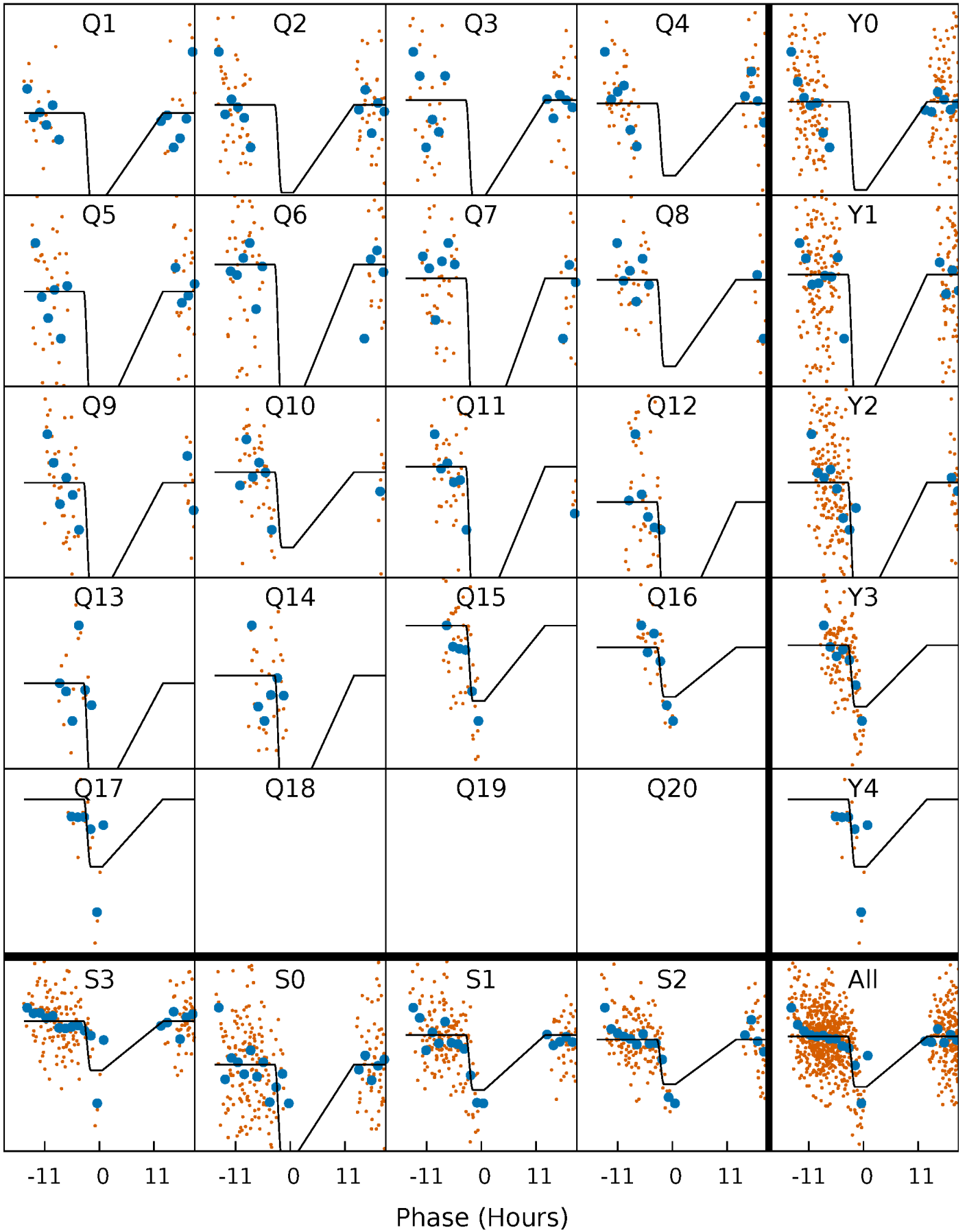
DV Quarter-Phased Transit Curves

TCE 007465661-05 $P = 33.037657$ Days $T_0 = 155.454949$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

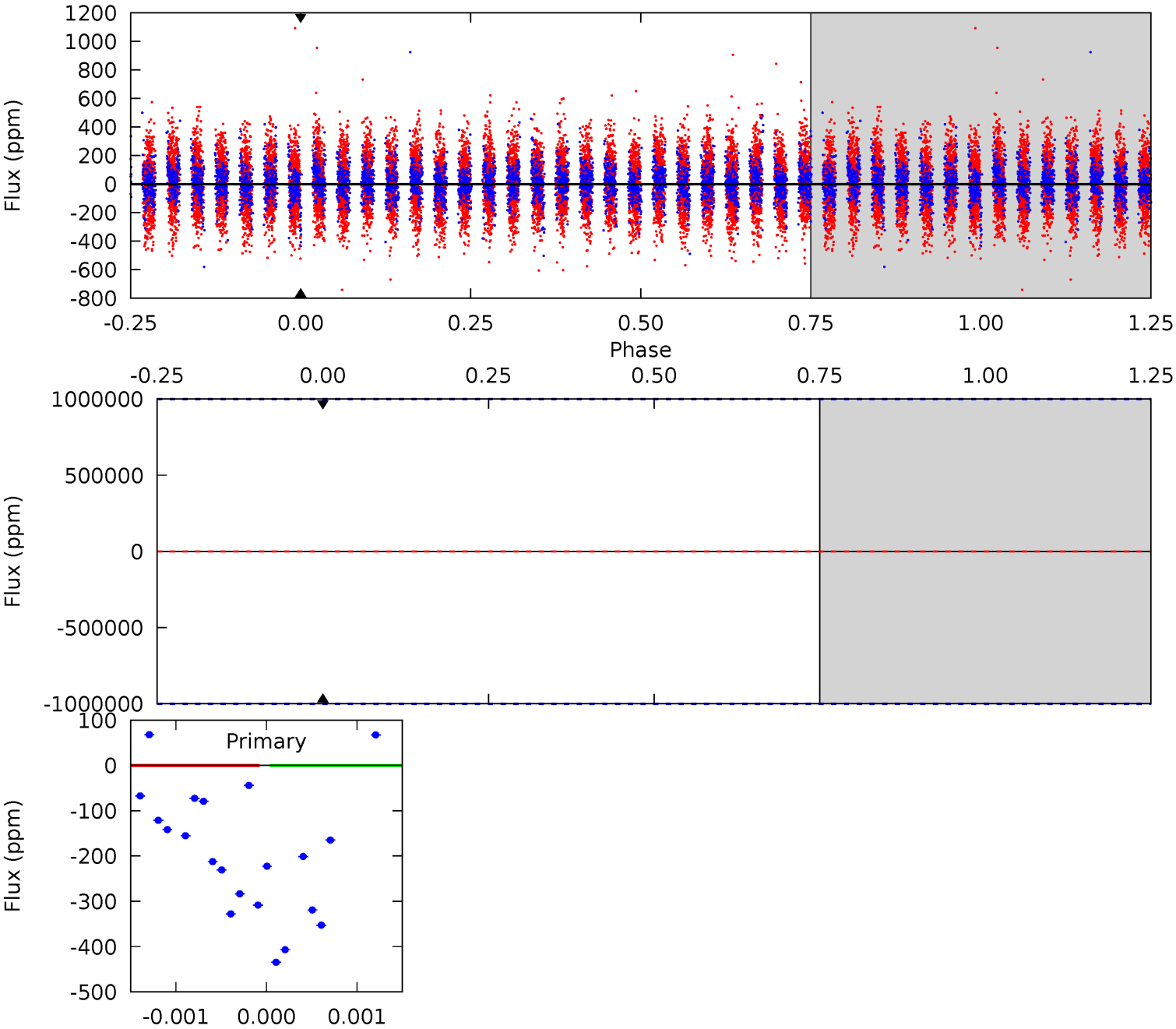
TCE 007465661-05 P= 33.037657 Days $T_0=155.479379$ (BKJD)



DV Model-Shift Uniqueness Test

007465661-05, P = 33.037657 Days, E = 122.417292 Days

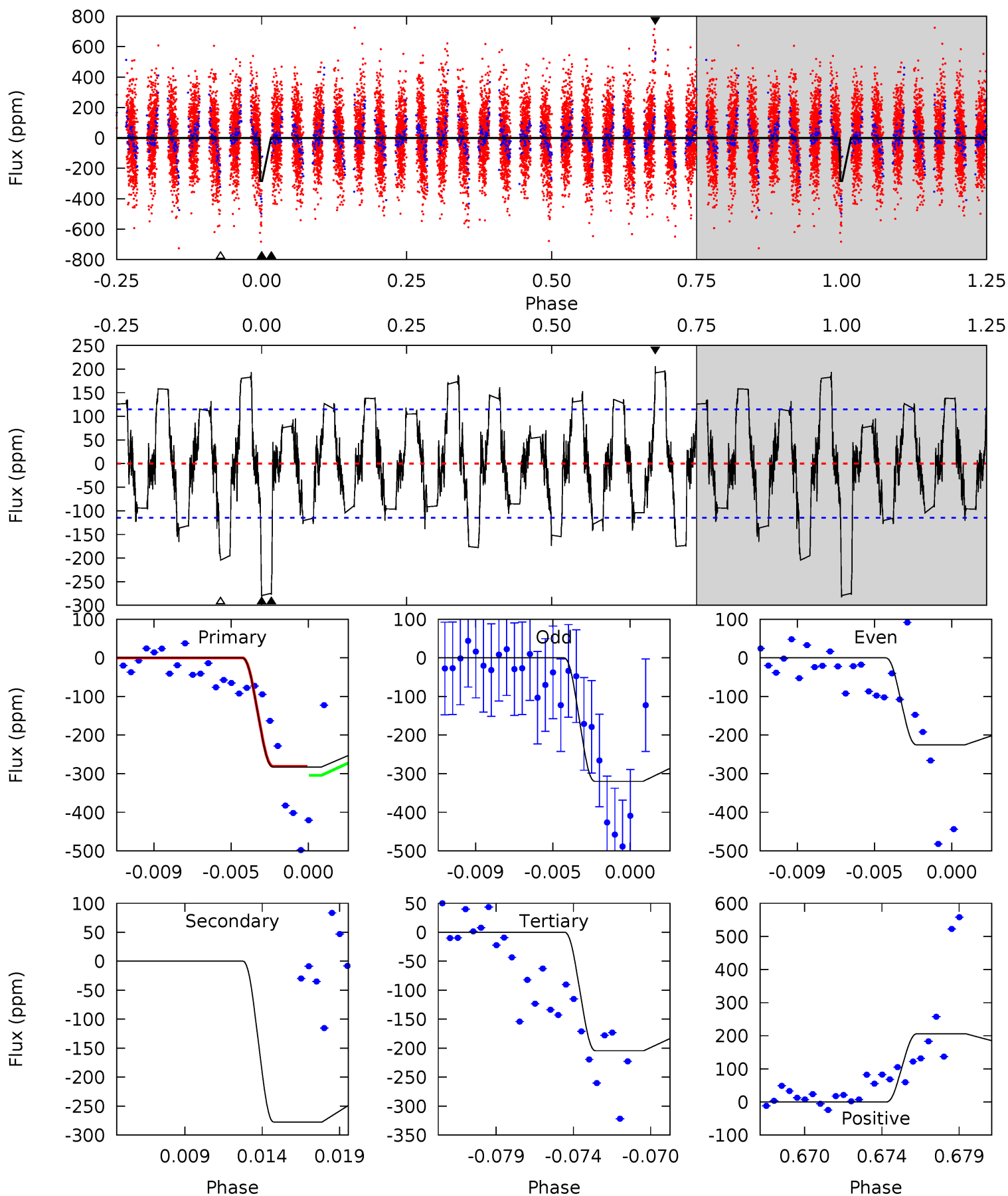
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

007465661-05, P = 33.037657 Days, E = 122.441722 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.7	12.5	9.21	9.28	5.17	2.83	2.22	3.53	3.45	3.29	3.21	2.10	1.48	0.42	0.20



Stellar Parameters For KIC 007465661

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6088^{+204}_{-167}	$3.476^{+0.392}_{-0.098}$	$0.120^{+0.250}_{-0.250}$	$4.112^{+0.753}_{-1.756}$	$1.845^{+0.139}_{-0.418}$	$0.037^{+0.111}_{-0.014}$
	+3%/-3%	+11%/-3%	+208%/-208%	+18%/-43%	+8%/-23%	+297%/-37%
Source	PHO1	FLK73	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 007465661-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$28.76^{+32.54}_{-20.02}$	1488^{+110}_{-156}	3108^{+21118}_{-28005}	$5.017^{+6492.192}_{-6648.252}$
Alt.	-277 ± 22	$31.89^{+31.45}_{-21.52}$	1498^{+105}_{-163}	3330^{+1587}_{-621}	$9.171^{+72.792}_{-6.920}$

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 $A_{obs} \gg 1.0$

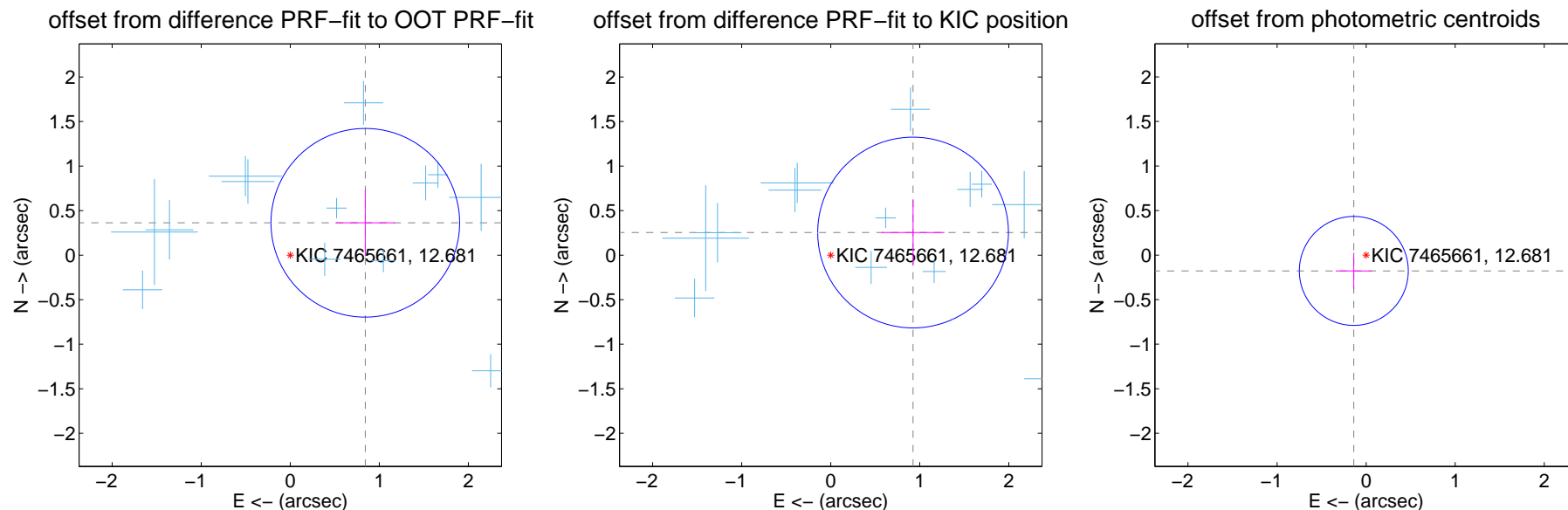
DV Centroid Data

Supplemental centroid analysis for 007465661-05. Kepler magnitude: 12.68. Transit SNR -1.00

There are 13 quarters with good PRF difference image offsets

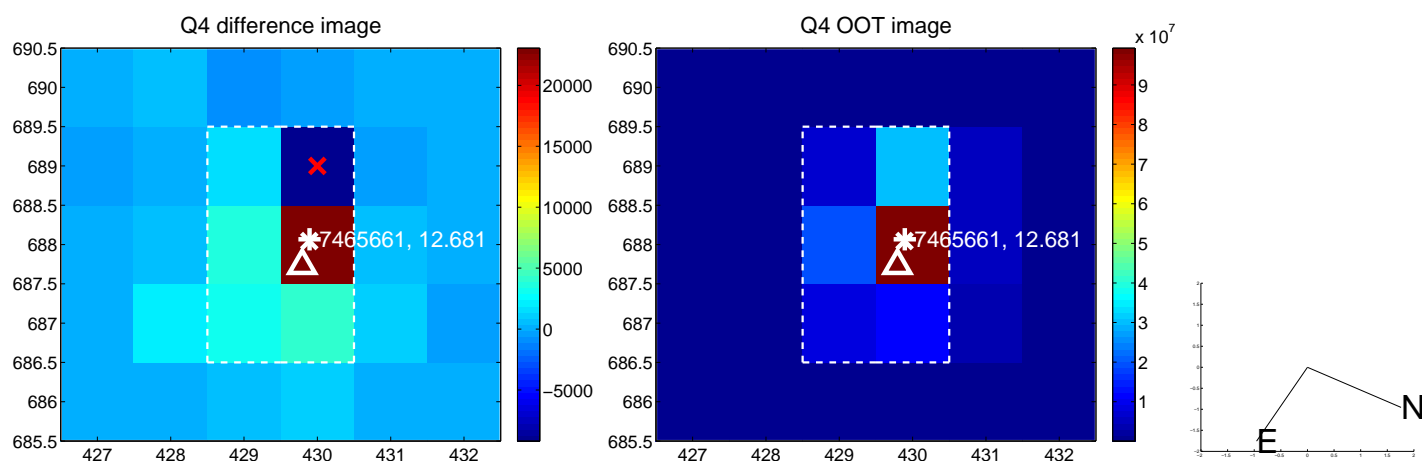
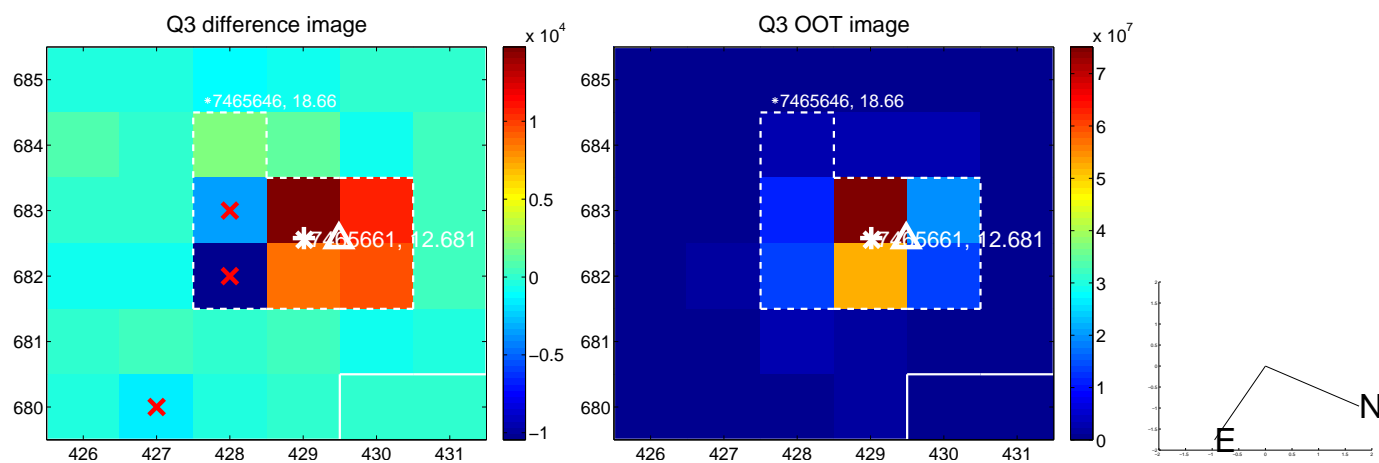
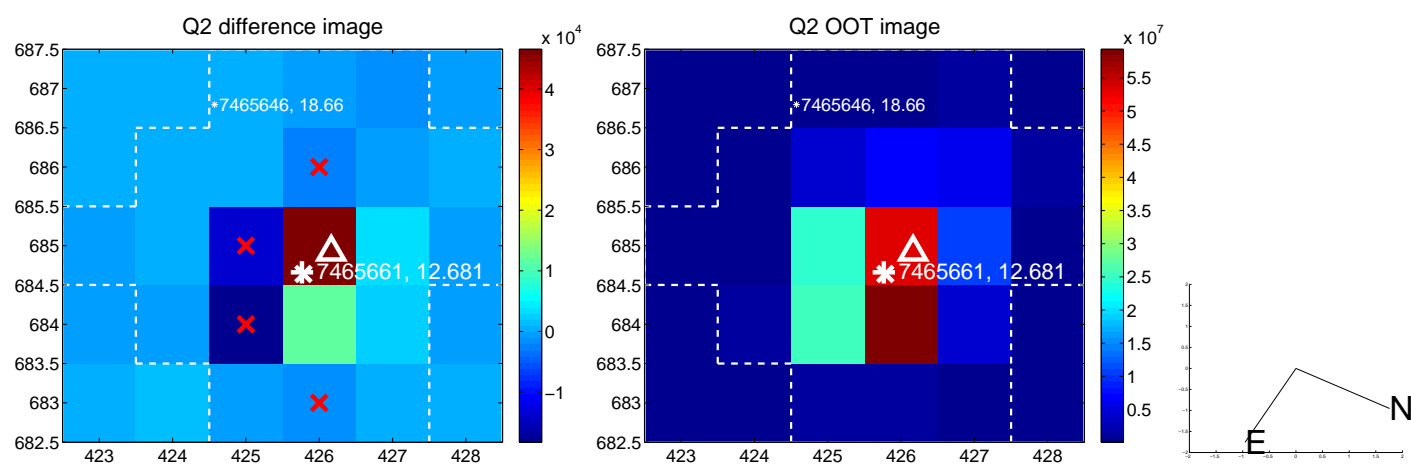
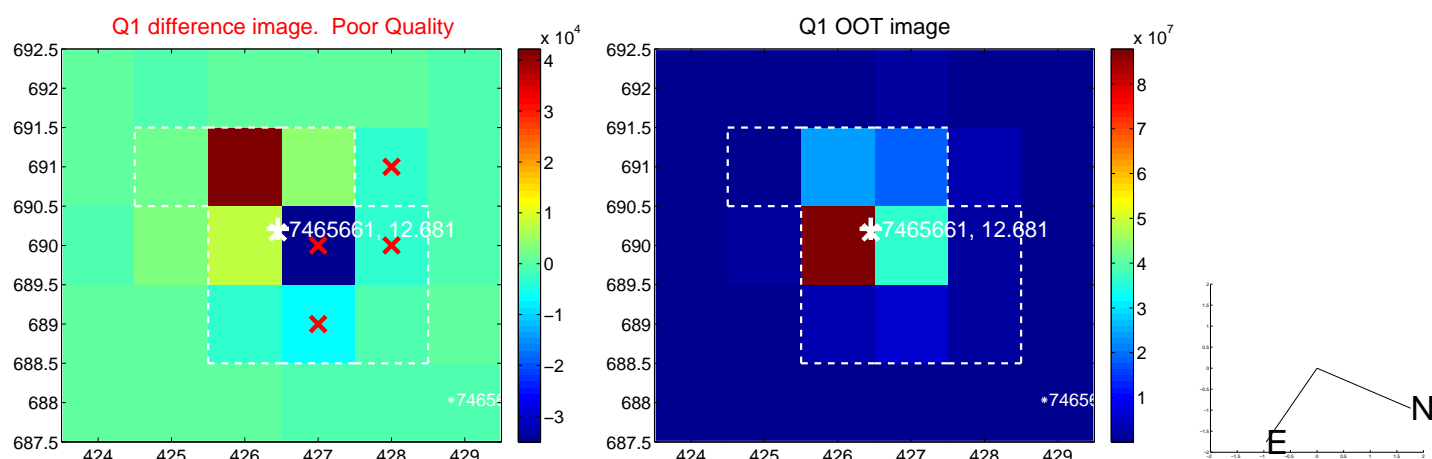
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.917 ± 0.353	2.60	-0.842 ± 0.334	0.363 ± 0.376
PRF-fit source offset from KIC position	0.959 ± 0.357	2.69	-0.924 ± 0.354	0.254 ± 0.372
photometric centroid source offset	0.23 ± 0.20	1.10	0.14 ± 0.20	-0.18 ± 0.20

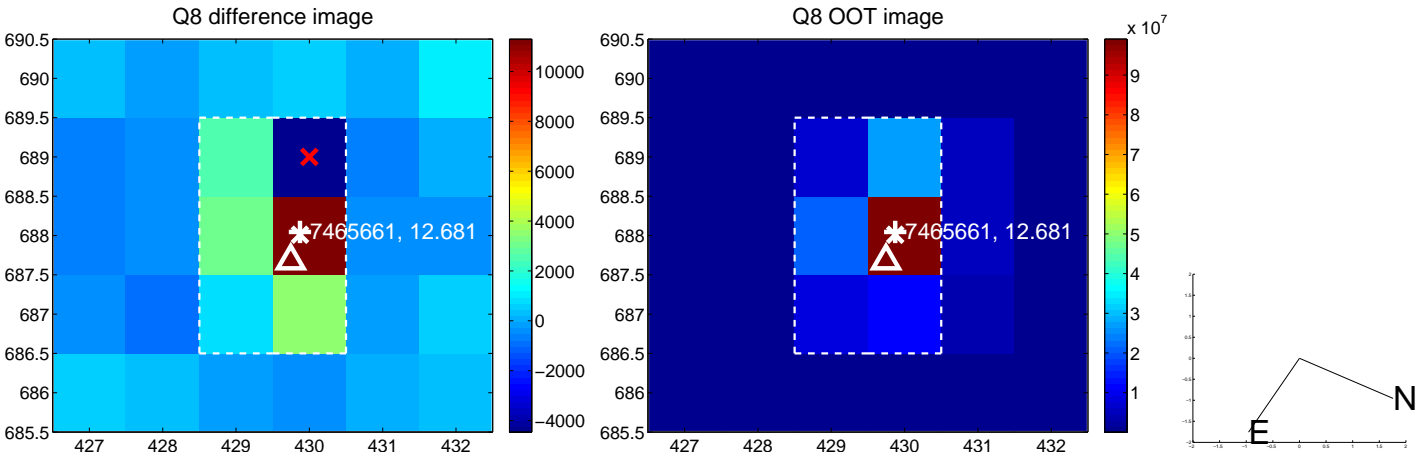
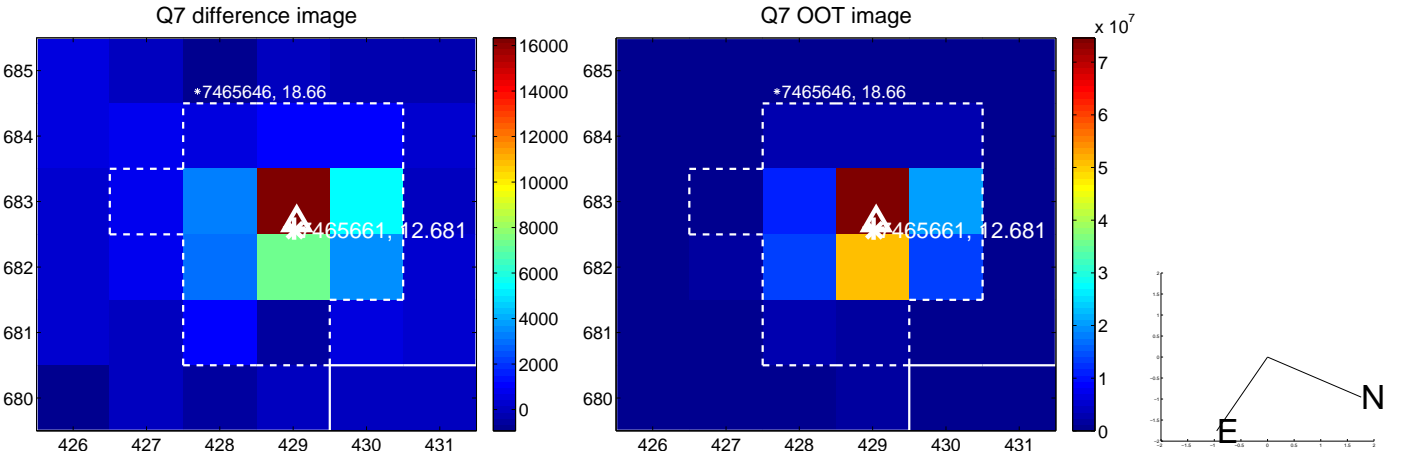
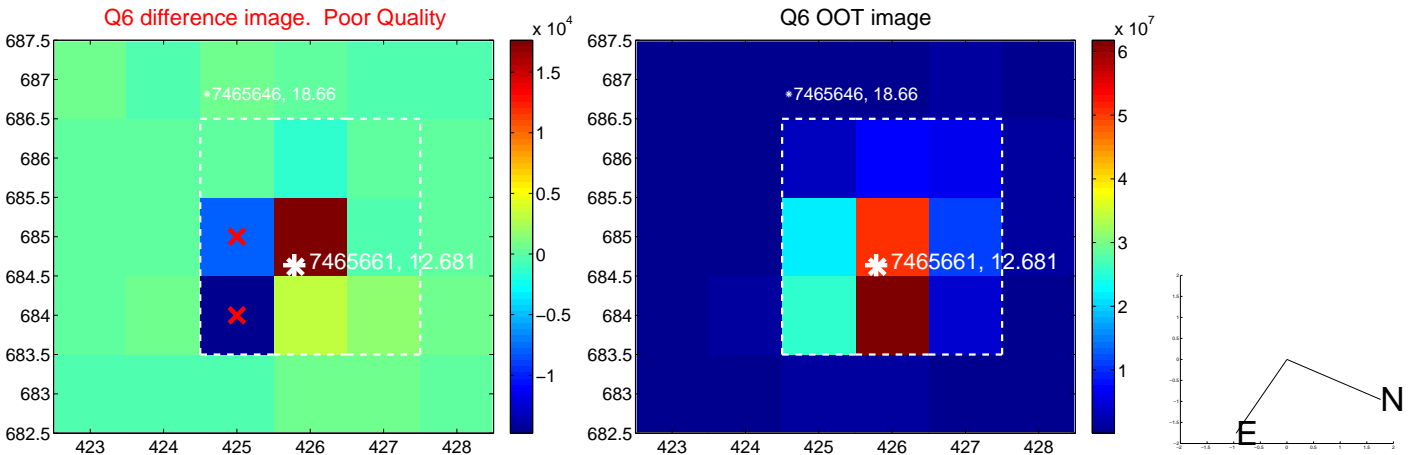
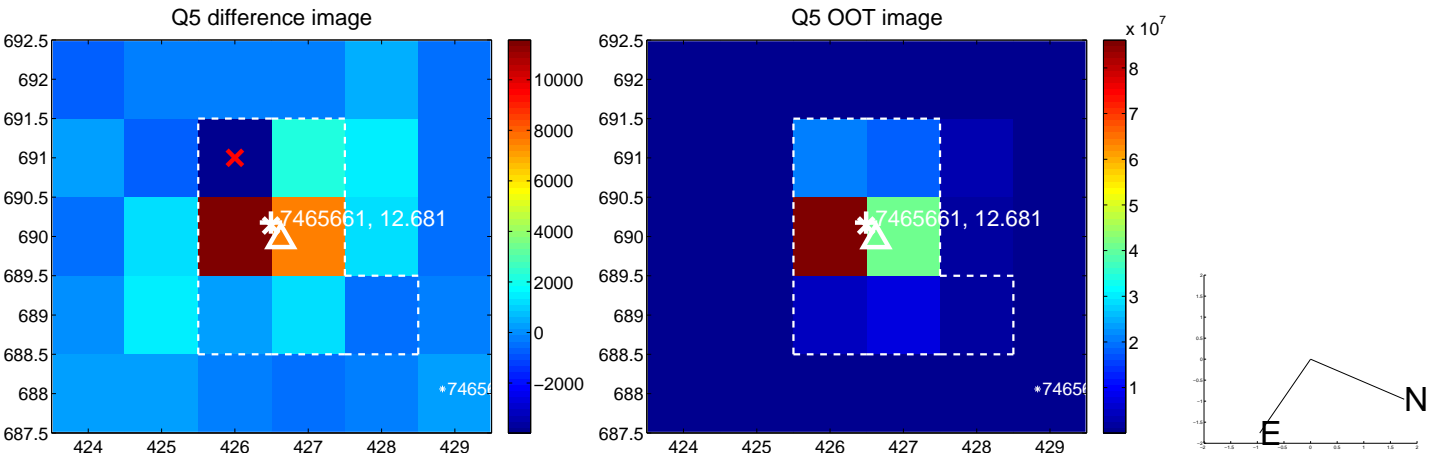


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

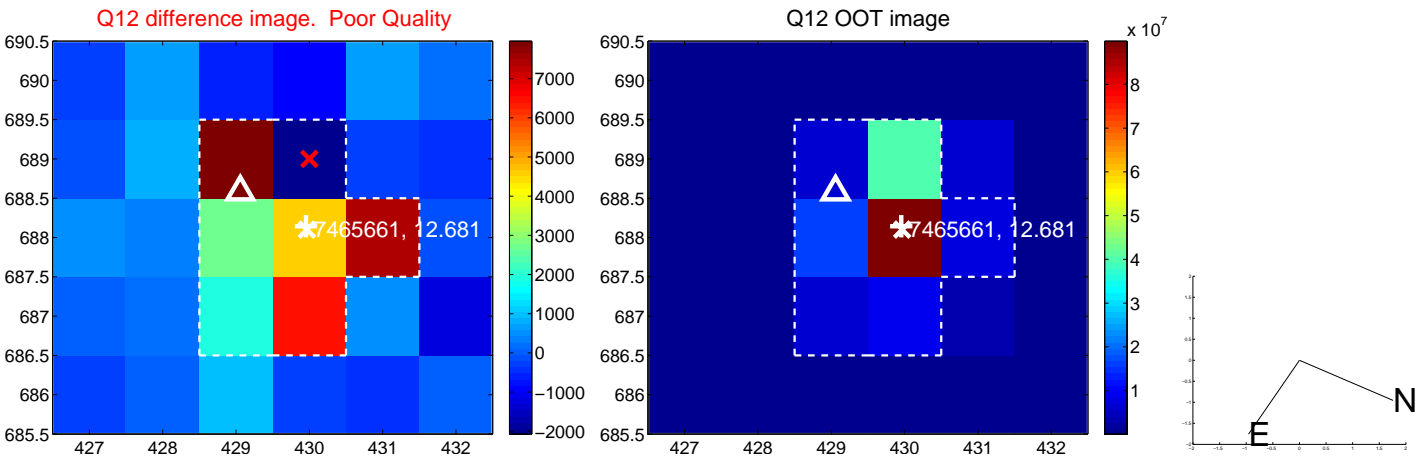
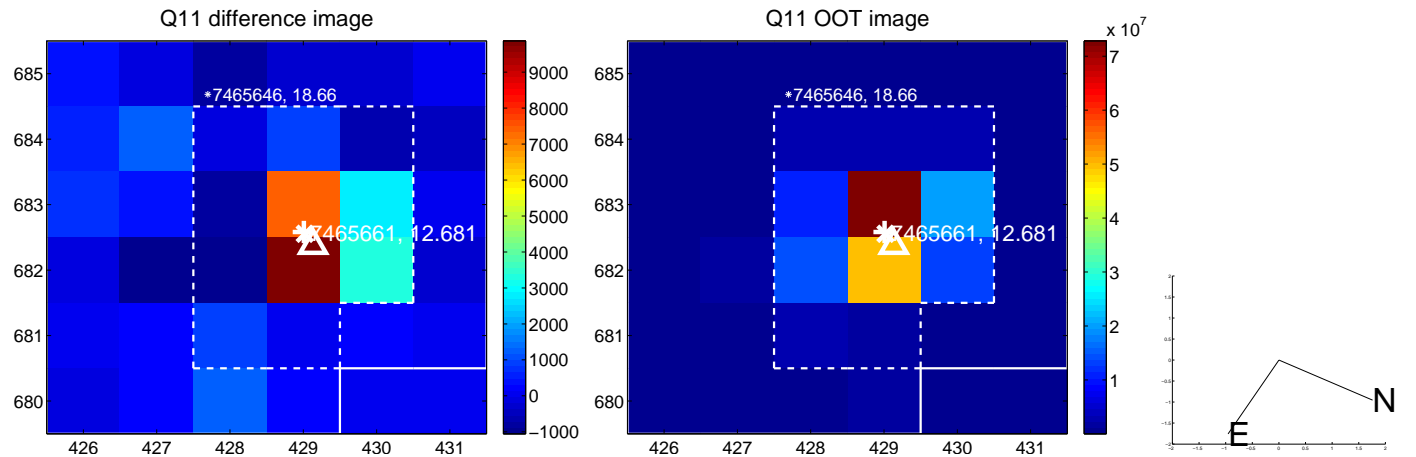
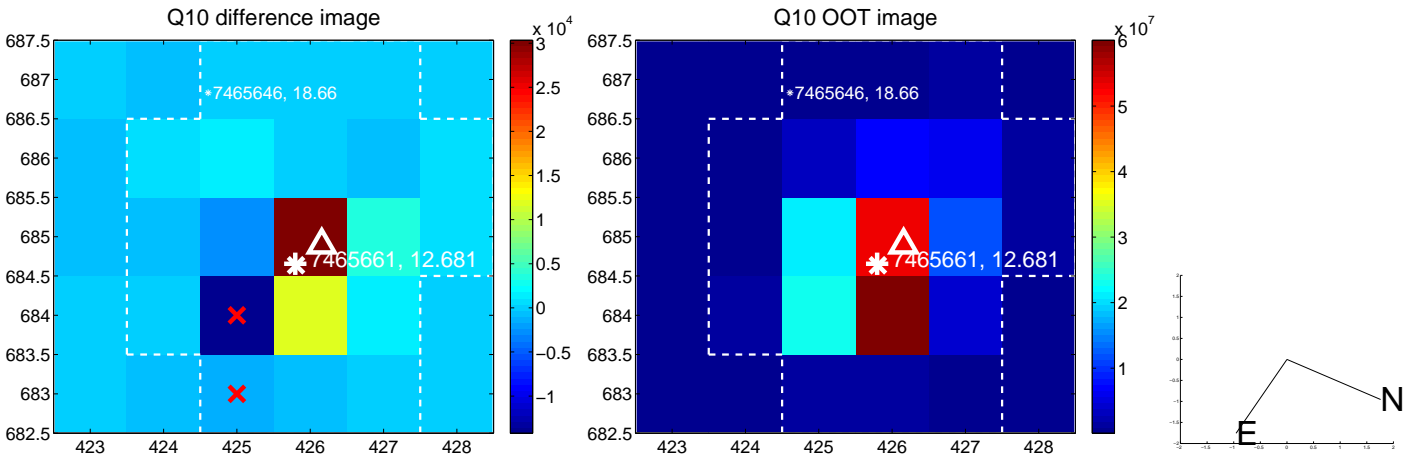
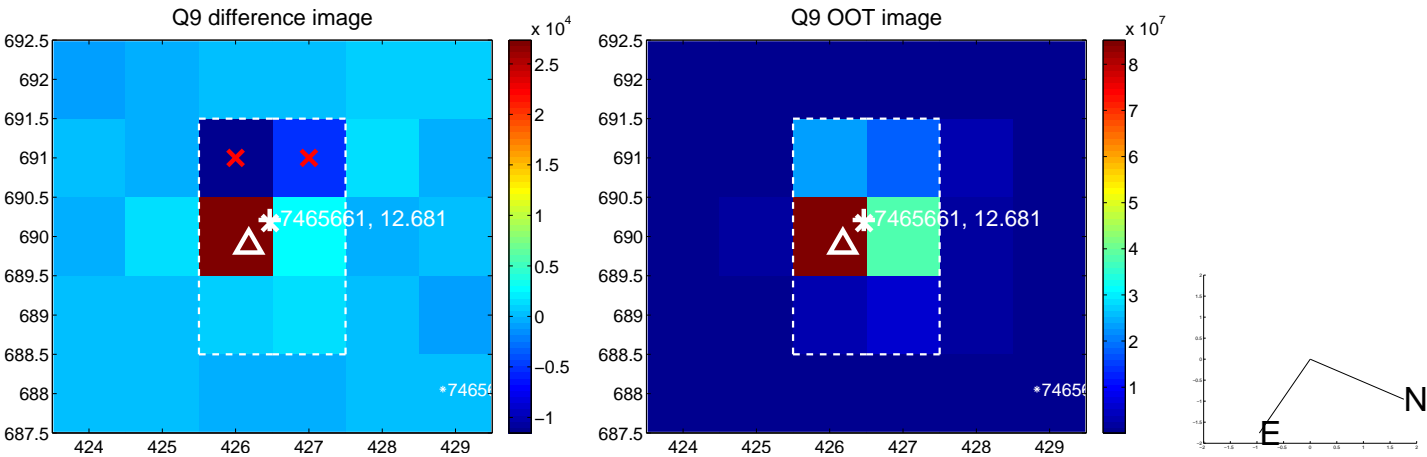
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



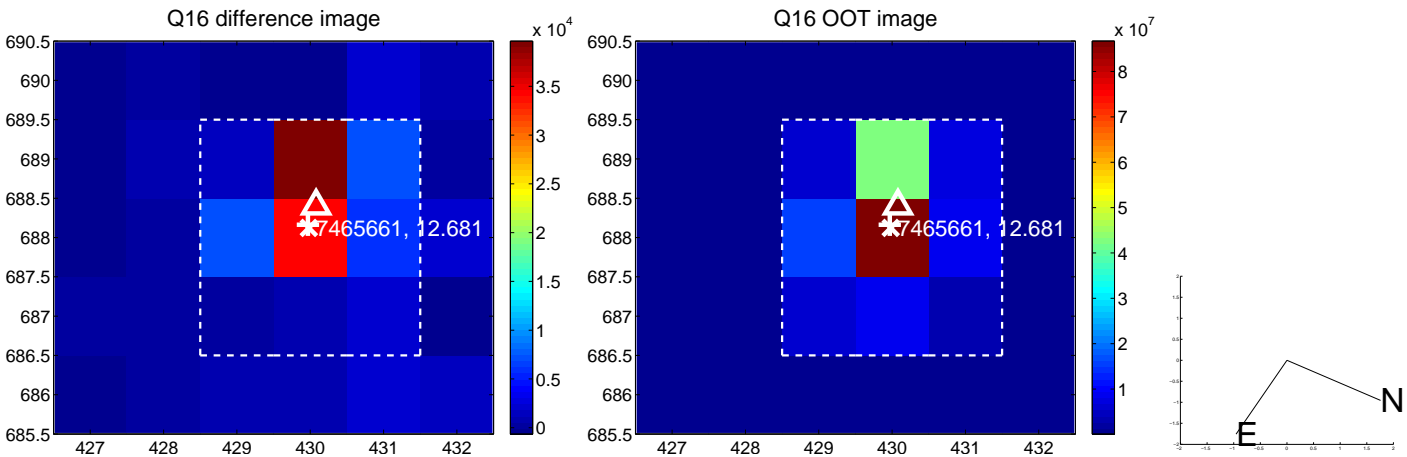
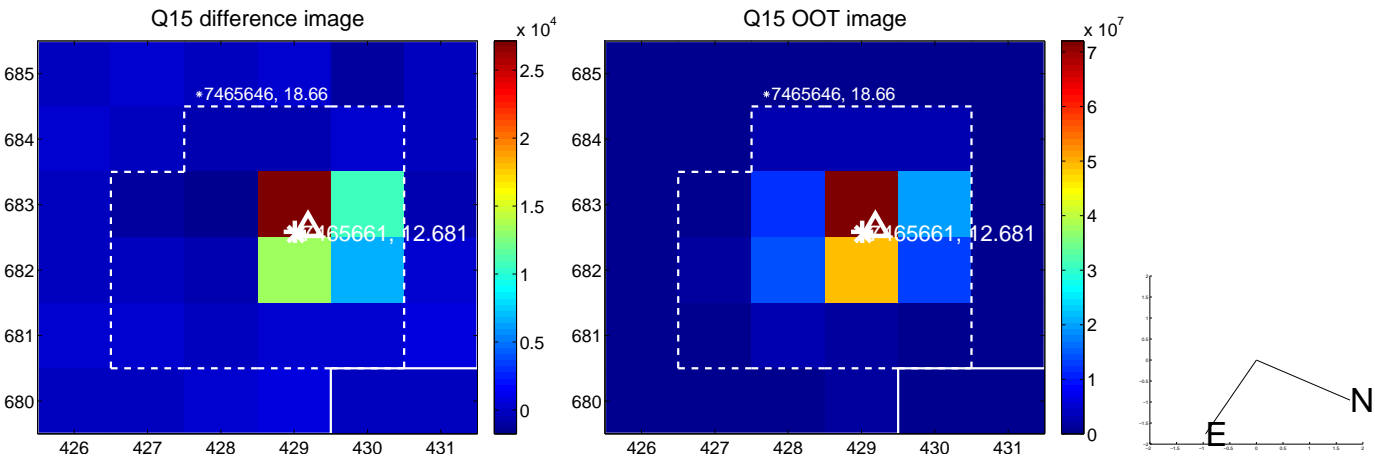
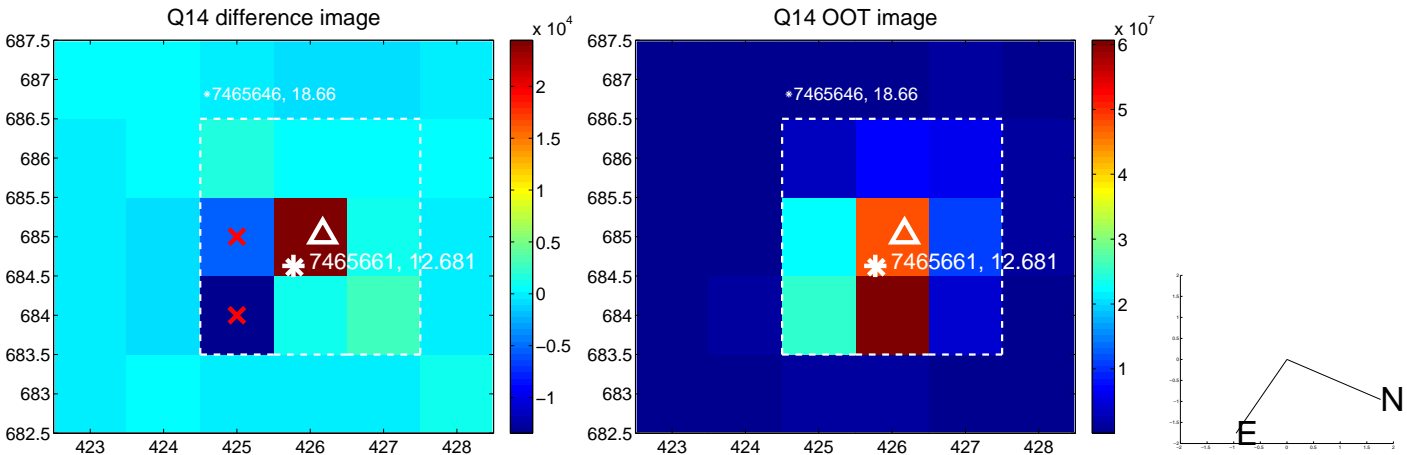
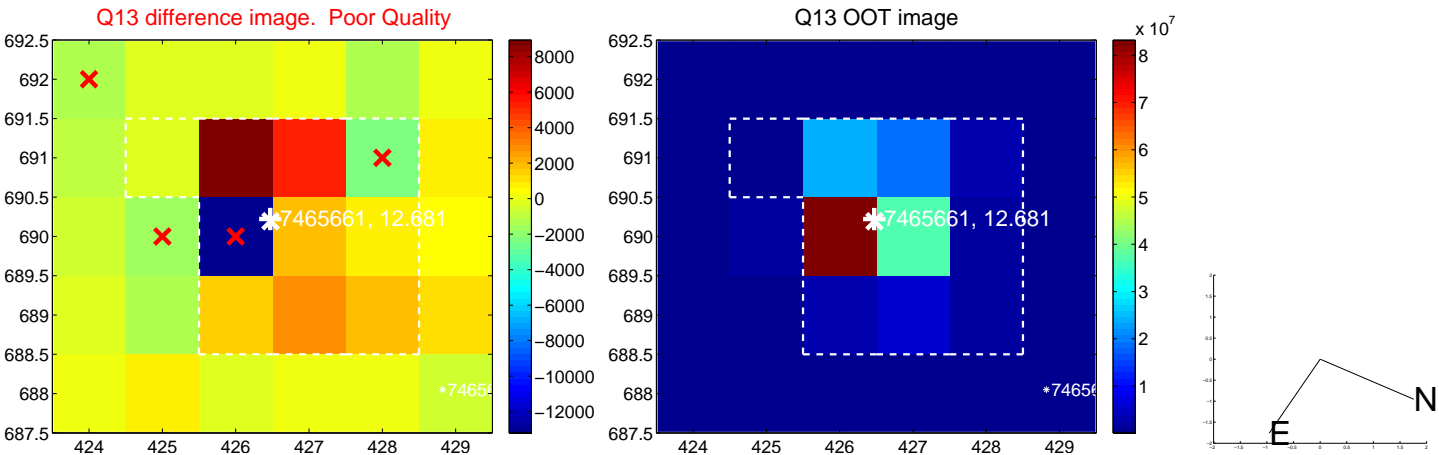
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

